SR 299
Transportation Concept Report

Segment Fact Sheets

Segment Fact Sheet Pages

The segment information sheets that follow provide detailed information for each segment on SR 299. Definitions for vocabulary on the segment information Sheets are found in **Appendix M**: Glossary.

- **Segment Fact Sheet (page 1)**
  - ❑ System Designations
  - ❑ Facility Concept and Future Design Concept
  - ❑ Current Highway Information
  - ❑ Existing and Future Traffic performance data
    - ▪ Average Daily Traffic (ADT) and Peak Hour traffic volume ranges.
    - ▪ Level of Service (LOS).
      - o LOS is shown in two different formats for the following years: 2005, 2015 and 2025.
        1. A Single LOS is shown for each year in segments that have no capacity projects identified.
        2. Two different LOS are shown for each year in segments where a capacity improvement project is identified.
           a. Unimproved LOS is used to show projected LOS if the proposed capacity increasing project is not completed.
           b. Improved LOS is used to show LOS that will be achieved if a proposed capacity increasing project is completed.
    - ▪ Collision rates.
      - o Actual Collision Rates on Segment and Statewide Average for Highway type.
- **General Information Sheet (page 2)**
  - ❑ Segment Description
  - ❑ Segment Issues
  - ❑ Segment Management
- **Segment Map (page 3)**
  - ❑ Provides a visual reference for the segment including beginning and ending Post Miles and other significant location features.
- **Projects (page 4)**
  - ❑ Projects to improve operations are separated into three categories:
    - ▪ "Completed" – year the project was completed.
    - ▪ "In - progress" – projects under development. Year shown is when construction is expected to begin.
    - ▪ "Potential Future - 20 year" – potential projects within 20 years.

Implementation of Improvements

"Future Improvements" have been identified based on capacity and operational analysis along with a public outreach program that included workshops and meetings with local and regional agencies and the general public. Implementation of many of the identified improvements will require funding and delivery partnerships between Caltrans and its local and regional partners.

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General Information

County: Humboldt **Route** 299 **Segment #:** 01HUM299 **Length Miles:** 42.1

Location: Arcata to Trinity County Line **Exit #'s:** 1, 2, 3A, 3B, 4, and 5. **PM Limit** 0.0 / 43.04

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), High Emphasis Route, California Legal Network, Interregional Transportation Strategic Plan (ITSP) Focus Route, Freeway/Expressway System, Trinity River Scenic Byway (USFS)

Bicycle Status: Permitted

Facility Concept

Present: 4F/2E/2C

Twenty-Year: 4F/2E/2C

Long Range: 4F/2E/2C

Future Design Concept

Design Speed: 50-80 mph

Clear Recovery: 30 ft.

Typical Section: 2-4 lanes; 12 ft. lane width; outside shoulder: 10 ft. (0.0-R5.93); 8 ft. (R5.93-R29.13); 4 ft. (R29.13-43.04).

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2-4	**Percent RVs:**	2-6%
Terrain:	Rolling to Mountainous	**Lane Width:**	12 ft.
Percent Trucks:	8-16%	**Average Outside Shoulder:**	2-8 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	500-1200	3600-12600	B
2015	550-1250	3850-13000	B
2025	700-1300	4150-13450	C

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
.62	1.39	.55	1.19

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 1
Arcata to Trinity County Line (HUM PM 0.0-43.04)

Segment Description

This segment runs from Arcata in Humboldt County to the Trinity County line.

The segment contains the incorporated cities of Arcata and Blue Lake and the smaller community of Willow Creek. Arcata-Eureka has a full service airport located in McKinleyville.

Travel on this section of the route is predominantly interregional linking rural communities and small urban areas to US 101, Interstate 5, and US 395. This section also serves recreational travel and goods movement. Percent of trucks is 8-16% with the highest volumes near the SR 96 junction.

Near Arcata, SR 299 is a 4-lane paved freeway with 12-foot lanes, 8-foot paved outside shoulders and 5-foot paved inside shoulders. The roadway to the east transitions into 23 miles of 2-lane expressway. The remainder is 2-lane conventional to the Trinity County line.

Segment Issues

Key issues include:

- The coastal range lends to harsh winter conditions at two summits, Lord Ellis (elevation 2,260-ft.) and Berry (elev. 2,871 ft.). Heavy snows occur on average 3-4 times per year and lighter snows more frequently.
- Unstable soils and steep slopes result in slides and falling rock during the rainy season. Approximately 8-10 locations experience slides each year on the route.
- This segment passes through small communities with limited services. This condition poses a challenge during incidents due to low availability of gas, food, and lodging.
- Portions of this segment fall within the tribal ancestral boundaries identified by Table Bluff Reservation and Blue Lake Reservation. SR 299 serves as the primary access route to the Hoopa Valley Indian Reservation on SR 96. The Hoopa tribe also utilizes SR 299 for transporting modular units from their production plant in Hoopa, products from their aggregate plant in Hoopa and Cement plant in Salyer. **See Appendix J**.
- Klamath/Trinity Non-Emergency Transportation provides weekday public transit between Hoopa and Willow Creek with connections to HTA service to Arcata.

Segment Management

This segment's challenges relate to the wide variations of terrain and the mountain passes. These locations are remote with limited services. Difficulties arise when there are road blockages due to vehicle incidents or land slides. Delays may last for several hours and one-lane controlled traffic or road closures are sometimes needed for multiple days. When long closures occur, SR 36 can be used as an alternate route, however travel times are considerably greater. Once on SR 299, travelers are left with the limited options to either wait or turn around. To help avoid this, an extinguishable message sign is located at the east end of the Mad River Bridge (PM 1.68) and an RWIS is located at Berry Summit (PM 28.7).

Long-term considerations for this segment include bridge and roadway rehabilitation.

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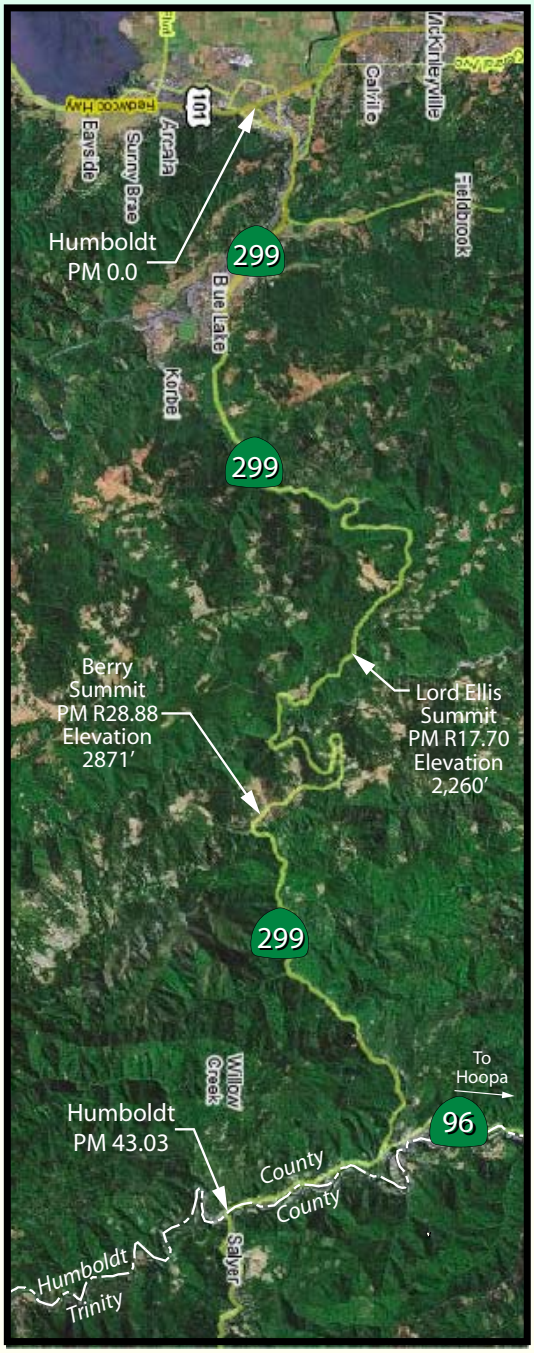
Segment 1 - Arcata to Trinity County Line



NORTH
No Scale

Caltrans

D2

SR 299 Transportation Concept Report (TCR)
Segment 1
Arcata to Tri County Line (HUM 299 PM 0.0-43.04)

Segment Projects/Potential Improvements

Name	Type	PM Location	Year	Program	Cost	Sponsor
Completed						
Construct Passing Lanes	**Capacity**	**41.2/42.1**	**2000**	**STIP**	**$ 1,000,000**	**Humboldt County, Caltrans**
Constructed eastbound passing lane near Salyer from .5 miles west of Martins Rd to .2 miles west of Martins Bluff viaduct.						
Widen Bridge	**Bridge Rehabilitation**	**R 1.1/R 2.1**	**2002**	**SHOPP**	**$ 3,000,000**	**Caltrans**
Widened bridge to accommodate two 12-foot lanes, a 10-foot right shoulder and 5-foot left shoulder.						
Widen Bridges	**Bridge Rehabilitation**	**33.2/35.6**	**2003**	**SHOPP**	**$ 5,000,000**	**Caltrans**
3 bridges widened to accommodate 6-foot shoulders on each side.						
Modify Drainage & Reconstruct Roadway	**Roadway Rehabilitation**	**R8.8/R9.0**	**2007**	**SHOPP**	**$ 745,000**	**Caltrans**
Description: Drainage rehabilitation and AC overlay, leveling and grinding in Humboldt County near Blue Lake from 2.3 miles to 2.0 miles west of North Fork Mad River Bridge.						
Resurface Existing Highway	**Roadway Rehabilitation**	**R011.0/19.0**	**2007**	**SHOPP**	**$ 2,880,000**	**Caltrans**
Humboldt County east of Blue Lake from 2.3 to 2.0 miles west of North Fork Mad River Bridge.						
Replace Joint Seals	**Bridge Maintenance**	**R22.3**	**2007**	**Maintenance**	**$ 863, 000**	**Caltrans**
Near Willow Creek at Redwood Creek Bridge.						
In-Progress						
Rehabilitate Culverts	**Roadway Rehabilitation**	**R7.5/R28.8**	**2009**	**SHOPP**	**$ 820,000**	**Caltrans**
Culvert rehabilitation at nine locations In Humboldt County on Route 299 near Blue Lake from 2 miles east of Blue Lake Under Crossing #4-193 to west of Titlow Hill Road.						
Blue Lake Sink	**Repair Storm Damage**	**R8.5**	**2009**	**SHOPP**	**$ 3,265,00**	**Caltrans**
Near Blue Lake at 1.8 miles east of Buckley Road and at 0.1 miles east of County Road 375 Three Creek Road.						
Repair Slip-out	**Repair Storm Damage**	**R21.5**	**2009**	**SHOPP**	**$ 1,403,000**	**Caltrans**
Repair slip-out and construct mechanically stabilized wall 16 Miles east of Blue Lake at 0.8 miles west of Redwood Creek Bridge #4-42.						
Open Graded Bonded Wearing Course	**Roadway Maintenance**	**R22.5/R29.2**	**2009**	**Maintenance**	**$ 2,500,000**	**Caltrans**
Place open grade asphalt 17 miles east of blue lake from redwood creek bridge to 4.0 miles west of east fork Willow Creek Bridge.						

SR 299 Transportation Concept Report (TCR)
Segment 1 (Continued)
Arcata to Tri County Line (HUM 299 PM 0-43.04)

Segment Projects/Potential Improvements

Name	Type	PM Location	Year	Program	Cost	Sponsor
Potential Future 20-Year						
Increase Vertical Clearance Br. #4-184	**Bridge Rehabilitation**	**1.8/1.82**	**2010**	**Ten-Year SHOPP**	**$ 1,000,000**	**Caltrans**
200/299 separation.						
Rehabilitate Bridge Br.#4-42 Redwood Creek Bridge	**Bridge Rehabilitation**	**22.33**	**2011**	**Ten-Year SHOPP**	**$ 3,500,000**	**Caltrans**
Replace Joint Seals.						
Rehabilitate Roadway	**CAPM**	**29.4/43.0**	**2013**	**Ten-Year SHOPP**	**$13,444,000**	**Caltrans**
Near Willow Creek from 3.8 miles west of East fork Willow Creek Bridge 4-1115 to south fork Trinity River bridge 4-50.						

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General Information

County: Trinity **Route** 299 **Segment #:** 02TRI299 **Length Miles:** 43.2

Location: Humboldt/Trinity County Line to Junction City **Exit #'s:** N/A **PM Limit** 0.0 / 43.42

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), High Emphasis Route, California Legal Network, California Legal Advisory Route, Interregional Transportation Strategic Plan (ITSP) Focus Route, Freeway/Expressway System, Trinity River Scenic Byway (USFS)

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 50-65 mph

Clear Recovery: 20-30 ft.

Typical Section: 2 lanes; 12 ft. lane width; 4 ft. outside shoulder.

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	1%
Terrain:	Mountainous	**Lane Width:**	12 ft.
Percent Trucks:	11-13%	**Average Outside Shoulder:**	2-4 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	400-500	3200-3650	B
2015	450-550	3500-3950	B
2025	500-600	3900-4350	C

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
.91	1.83	.91	1.8

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 2
Humboldt/Trinity County Line to Junction City (TRI PM 0.0-43.42)

Segment Description

This segment runs from the Humboldt/Trinity County line to Junction City in Trinity County.

State Route 299 serves as the main street in several small communities (Salyer, Burnt Ranch, Del Loma, Big Bar, Helena, and Junction City).

Travel on this section of the route is predominantly interregional linking rural communities and small urban areas to US 101, Interstate 5, and US 395.

This section of the route is 2-lane conventional with the majority of the paved shoulders 2 feet or less. The portion of the highway that traverses along the Trinity River, which is called "Down River" by local residents, is designated as "Wild and Scenic" by the U.S. Department of interior. This River continues to attract growing numbers of tourists.

Segment Issues

Key issues include:

- Few passing opportunities exist.
- Shoulders widths are limited for a large portion of highway that winds along the Trinity River between sharp embankments and steep slopes. Treated shoulders are limited at many locations for the same reasons.
- Steep inclines along the roadway result in slides and falling rock during the rainy season (October through May).
- Frequent closures (some multiple days) due to slides, slip-outs, and forest fires.
- This segment passes through small communities with limited services. This condition poses a challenge during incidents due to low availability of gas, food, and lodging.
- The Big Flat area (PM 30.5-31.5) shows growing popularity as a river-rafting destination resulting in heightened pedestrian circulation.
- Limited infrastructure is present along large portions of this segment. The remote areas between communities lack public utilities, telephone, and cell phone services.
- Four locations in this segment are not Surface Transportation Assistance Act (STAA) compliant. See **Appendix D**.

Segment Management

This segment's challenges relate to terrain constraints that reduce practical opportunities for shoulder or roadway widening.

Portable Changeable Message Signs (PCMS) are placed in Humboldt County and the west side of Weaverville, as needed during winter storms, to warn travelers of slides or chain requirements. A potential location for a permanent CMS is PM 32.2.

Two RWIS are in place at PMs 48.0 and 69.7. Two Highway Advisory Radio signs (HAR signs) are located just east of this segment (PM 48.1 and 52.8).

Context sensitive solutions principles and design features should be applied to any future projects developed within the community of Big Flat.

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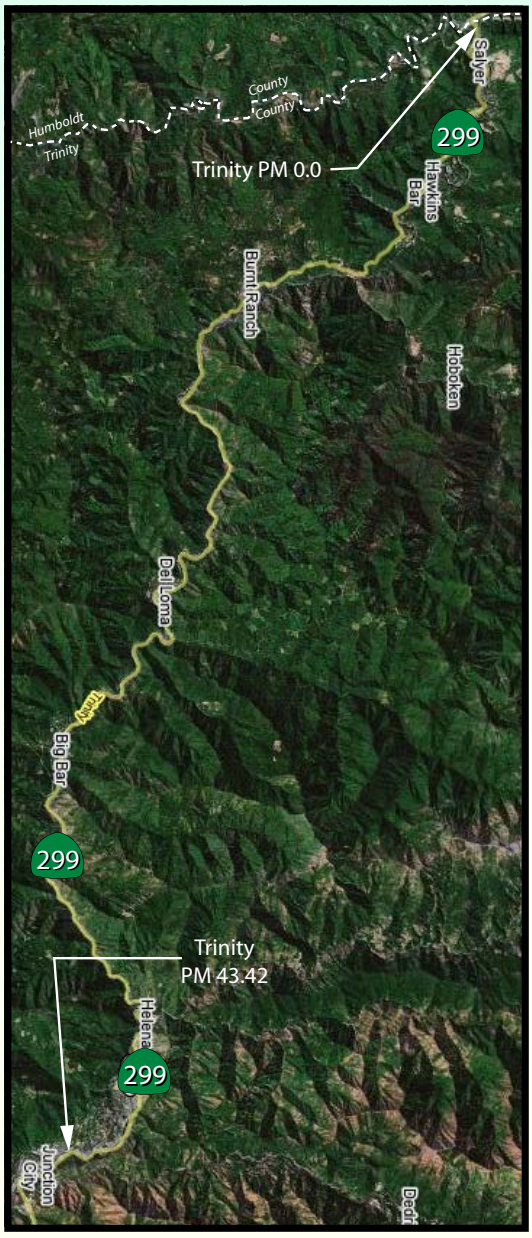
Segment 2 - Humboldt/Trinity County Line to Junction City



NORTH
No Scale

State Route 299 Transportation Concept Report (TCR)
Segment 2
HUM/TRI County Line to Junction City (TRI 299 PM 0-43.42)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
AC overlay	**Capital Maintenance**	**0.0/25.8**	**2000**	**SHOPP**	**$4,500,000**	**Caltrans**
In Trinity County near Salyer, Burnt Ranch and Del Loma at various locations from Humboldt County to 4.0 km east of Big French Creek Bridge.						
Manzanita Passing Lanes	**Capacity**	**29.4/30.2**	**2003**	**STIP (IIP)**	**$2,900,000**	**Caltrans**
Added EB and WB passing lanes to improve mobility and safety. Near Big Bar from 0.4 miles east to 1.2 miles east of Manzanita Creek Bridge.						
Curve Improvement-Pigeon Point	**Safety**	**36.1/36.4**	**2005**	**SHOPP**	**$900,000**	**Caltrans**
Increased curve radius to improve safety and corridor mobility.						
Curve Improvement-Del Loma	**Safety**	**21.0/21.4**	**2006**	**SHOPP**	**$1,206,000**	**Caltrans**
Increased curve radius to improve safety and corridor mobility.						
Slide Repair	**Storm Damage Repair**	**011.1/011.3**	**2007**	**SHOPP**	**$1,947,750.00**	**Caltrans**
In Trinity County on Route 299 from .9 miles west of Weaver Creek Bridge to 0.3 miles west of Trinity River Bridge. Clean up falling rocks and debris.						
In-Progress						
Indian Creek Shoulder Improvement	**Operational**	**18.7/18.9**	**2008**	**SHOPP**	**$900,000**	**Caltrans**
Add 4-foot shoulders from .9 mile to 1.1 mile west of Big Mountain Road.						
Potential Future 20-Year						
Curve Improvement-Salyer	**Safety**	**2.2/2.6**	**2009**	**Ten-Year SHOPP**	**$2,000,000**	**Caltrans**
Increase curve radius to improve safety and corridor mobility.						
Curve Improvement-China Slide	**Safety**	**13.3/13.8**	**2009**	**Ten-Year SHOPP**	**$4,425,000**	**Caltrans**
Shoulder widening.						
TRI 299 Pullouts	**Operational**	**10.5/42.6**	**2010**	**Ten-Year SHOPP**	**$750,000**	**Caltrans**
In Trinity County at various locations from Hennessey Road to 0.7 miles south of Canyon Creek bridge.						
Curve Improvement	**Operational**	**0.5/0.85**	**2011**	**Ten-Year SHOPP**	**$1,369,000**	**Caltrans**
Curve improvement.						
Swede Creek Super-elevation Improvement	**Safety**	**19.2/19.6**	**2011**	**Ten-Year SHOPP**	**$1,493,000**	**Caltrans**
Realign Curves, improve super elevation, add four foot shoulders, install MBGR and increase sight distance.						
Upgrade Bridge Rail	**Operational**	**23.3**	**2011**	**Ten-Year SHOPP**	**$1,627,000**	**Caltrans**
Upgrade bridge rail and widen bridge near Del Loma at Big French Creek.						
Horseshoe Curve improvement	**Operational**	**38.8/39.0**	**2010**	**Ten-Year SHOPP**	**$800,000**	**Caltrans**
Curve improvement, add paved shoulders.						

General Information

County: Trinity **Route** 299 **Segment #:** 03TRI299 **Length Miles:** 7.2

Location: Junction City to Weaverville **Exit #'s:** N/A **PM Limit** 43.42 / 50.62

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), High Emphasis Route, California Legal Network, California Legal Advisory Route, Interregional Transportation Strategic Plan (ITSP) Focus Route, Freeway/Expressway System, Trinity River Scenic Byway (USFS)

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 50-65 mph

Clear Recovery: 20 ft.

Typical Section: 2 lanes; 12 ft. lane width; 4 ft. outside shoulder.

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	1-3%
Terrain:	Mountainous	**Lane Width:**	11-12 ft.
Percent Trucks:	13%	**Average Outside Shoulder:**	2 ft. or less

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	350-450	2950-3400	B
2015	400-550	3350-4000	C
2025	450-650	3850-4750	C

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
.51	1.17	.7	1.43

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 3
Junction City to Weaverville (TRI PM 43.42- PM 50.62)

Segment Description

This segment runs from Junction City to Weaverville in Trinity County.

Travel on this section of the corridor is predominantly interregional, linking rural communities and small urban areas to US 101, Interstate 5, and US 395. State Route 299 also facilitates commuting and school transit between Junction City and Weaverville. In addition recreational travel and goods movement constitute a portion of the traffic.

This section of the corridor is 2-lane conventional highway with the majority of treated shoulders 2-ft. or less.

There are two historic features of note in this segment: The La Grange Hydraulic Gold Mine (PM 47.67), which was once known as the largest operating hydraulic mine in the world and the Moon Lim Lee Ditch (PM 50.26) which crosses underneath State Route 299.

Segment Issues

Key issues include:

- West of Oregon Mountain, treated shoulders are narrow where the highway winds between sharp embankment and steep slopes.
- Near the Oregon Mountain Summit (PM 48.47), there are steep grades (5-6%) and unstable soils. During the rainy season rock-fall and overall movement of the roadbed are common. The inclines along the roadway often slide, and roadway slip-outs occur causing uneven pavement.
- Harsh winter conditions near Oregon Mountain Summit cause delays, with heavy snows and more frequent lighter snows.
- No services are available between Junction City and Weaverville over Oregon Mountain. This condition poses a challenge during incidents due to no availability of gas, food, and lodging.
- One location in this segment is not Surface Transportation Assistance Act (STAA) compliant. **See Appendix D**.

Segment Management

This segment's challenges relate to terrain constraints that reduce practical opportunities for shoulder and roadway widening and high elevation areas that produce snow and ice conditions.

Portable Changeable Message Signs are placed in Humboldt County and the western end of Weaverville, as needed during winter storms, to warn travelers of slides or chain requirements.

A Remote Weather Information System (RWIS) and a Closed Circuit Television (CCTV) are both located at the Oregon Summit (PM 48.0), to provide weather information that can be viewed on the Internet. Also, two Highway Advisory Radio Signs located at PM 48.1 and PM 52.8.

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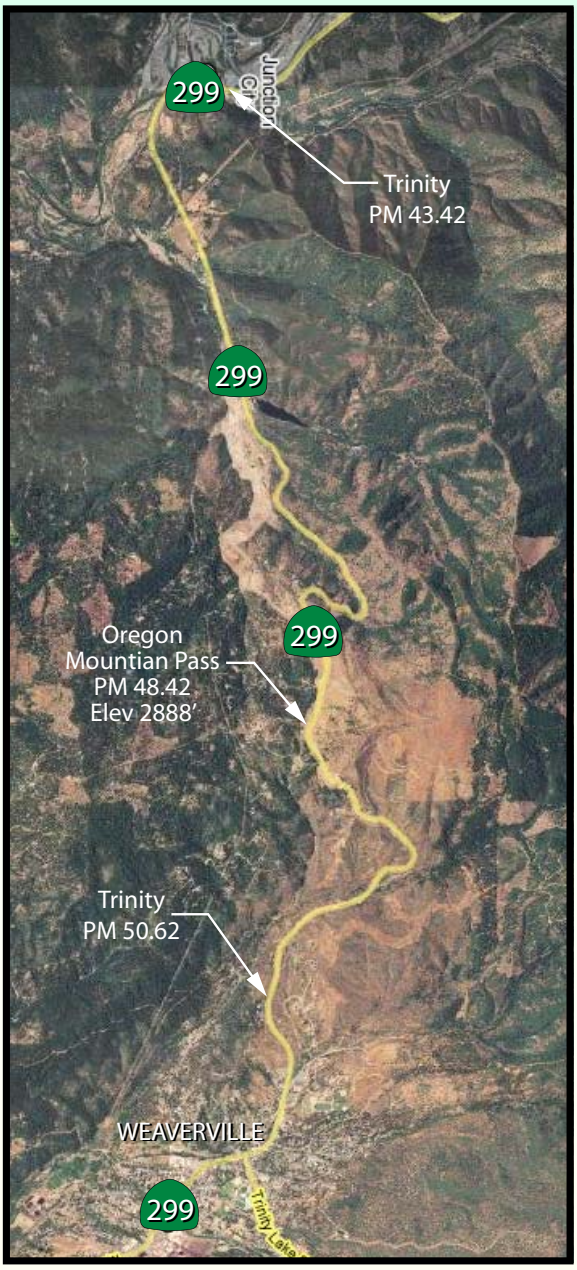
Segment 3 - Junction City to Weaverville



NORTH
No Scale

State Route 299 Transportation Concept Report (TCR)
Segment 3
Junction City to Weaverville (TRI 299 PM 43.42-50.62)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
Vertical Curve Improvement- Oregon Mountain	**Safety**	**47.9/48.4**	**2004**	**SHOPP**	**$5,600,000**	**Caltrans**
Improve vertical and horizontal curve alignment to improve safety and mobility. Near Weaverville from 2 miles to 3 miles east of Slattery Pond Road.						
In-Progress						
No capacity projects or significant operational projects in progress.						
Potential Future 20-Year						
No capacity projects or significant operational projects proposed.						

SR 299 Transportation Concept Report - Segment Fact Sheet

General Information

County: Trinity **Route** 299 **Segment #:** 04TRI299 **Length Miles:** 2.8

Location: Weaverville **Exit #'s:** N/A **PM Limit** 50.62 / 53.43

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), High Emphasis Route, California Legal Network, Interregional Transportation Strategic Plan (ITSP) Focus Route, Freeway/Expressway System, Trinity River Scenic Byway (USFS)

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C/4C

Long Range: 4C

Future Design Concept

Design Speed: 40-65 mph

Clear Recovery: 2-20 ft.

Typical Section: 2 lanes; 12 ft. lane width;
4 lanes; 12 ft. lane width;
outside shoulder: 8ft. (50.62-52.72); 4 ft. (52.72-53.43).

Concept LOS
C/D

Current Highway Information

Number of Lanes: 2

Terrain: Rolling

Percent Trucks: 3-11%

Percent RVs: 1%

Lane Width: 12 ft.

Average Outside Shoulder: 8 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS Unimproved	LOS Improved
2005	450-1300	3400-12200	D	N/A
2015	700-1600	5000-15000	E	D[1]
2025	900-2000	7500-18600	F	E[2]

D[1] Reflects LOS with Completion of East Connector.
E[2] Reflects LOS with East Connector Project. Other yet-to-be-determined improvements to SR 299 will be necessary to attain the Concept LOS of C/D.
Caltrans District 2, Office of System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
.88	2.0	.6	1.22

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 4
Weaverville (TRI PM 50.62-53.43)

Segment Description

This segment is within the town of Weaverville located in Trinity County.

State Route 299 serves as the main street to the town of Weaverville, which is also the county seat for Trinity County and the largest community between Redding and Arcata.

Travel on this section is shared by local and interregional traffic. Typical local trips consist of commuting daily to work or school, and participating in the area commerce. Interregional trips link rural communities and small urban areas to US 101, Interstate 5 and US 395.

This section also serves recreational travel and goods movement. Truck traffic ranges from 3-11 % of ADT. The highest traffic volume is near the SR 3 junction.

This portion of the corridor is a 2-lane conventional highway with 8-ft. paved outside shoulders and a continuous two-way turn lane outside of the downtown area.

The old downtown portion of Weaverville is listed on the National Register of Historic Places and is a popular tourist destination.

Segment Issues

Key issues include:

- The local high school is located on the west end of town and contributes to high volumes before and after the school day.
- There are few local road alternatives, thus most local trips must use State Route 299. In addition, the US Postal Service does not provide home mail delivery, which adds driving trips to the post office downtown.
- There are no traffic signals, which make left turns from SR 3 and side streets difficult, especially in the summer.
- Right-of-way, historical status and development issues will make facility expansion difficult within the community.
- Bicycle and pedestrian facilities are not continuous throughout the community.
- Trinity Transit provides shuttle service in Weaverville and to Hayfork, the American Cancer Society has free transportation for cancer patients to Redding, and Shasta College offers one round trip per day to and from the college in Redding on weekdays.
- The Lonnie Pool Field public airport is located in Weaverville.
- The Trinity River Lumber Company is the only large mill that is still operating in the county. It is located in the central portion of this segment and adds to the truck volumes on the route.

Segment Management

This segment's challenges relate to high traffic volumes due to few local road alternatives to SR 299, and increased recreational volumes in the summer. Limited right of way and historical status make options to increase capacity within town difficult. Based on projections, LOS will drop to E by 2025, resulting in the need to make major changes to manage traffic on SR 299. The development of local roads to improve circulation can help to avoid high impact changes to SR 299 through the community.

Trinity County has approved and committed funding for a collector road project to improve circulation within Weaverville. The project will provide an alternate route for traffic to travel off of State Route 299. The East Connector will provide access between SR 3 and SR 299 on the east side of Weaverville, and includes installation of a signal at the new intersection with SR 299.

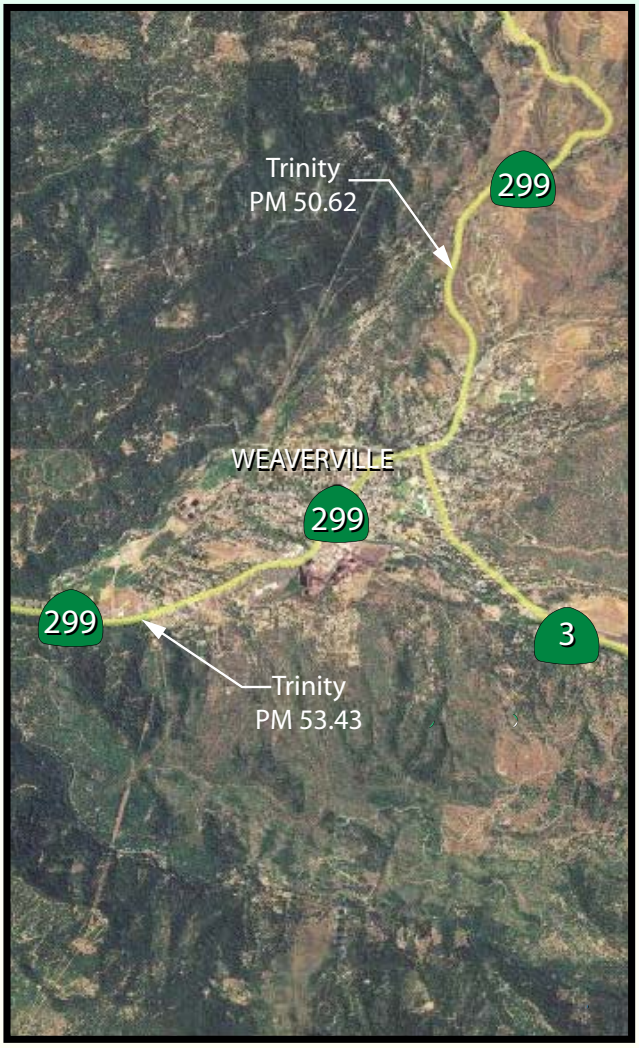
On May 18, 2009 the Trinity County Board of Supervisors held a special meeting on the Final Environmental Impact Report for the proposed West Connector (WC) project and selected the no project alternative. The WC Project would have paralleled SR 299 on the west side of Weaverville and provided a local road alternative to SR 299. Without this road, Level of Service will decline below concept on SR 299 by 2025. Absent the WC, other yet-to-be-determined improvements to SR 299 will be necessary to maintain the concept LOS.

Two Highway Advisory Radio Signs are located at PM 48.1 and PM 52.8. A Highway Advisory Radio (HAR) and flashing beacon is located within this segment near PM 51.8. Just west of this segment both a Roadside Weather Information System (RWIS) and Closed Circuit Television (CCTV) are in place at PM 48.0. A Changeable Message Sign (CMS) is planned for PM 51.3.

Context sensitive solutions principles and design features should be applied to future projects developed within the community of Weaverville.

299 Transportation Concept Report

Segment 4 - Weaverville



NORTH
No Scale

SR 299 Transportation Concept Report (TCR)
Segment 4
Weaverville (TRI 299 PM 50.62-53.43)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
Widen Highway and Bridge in Weaverville	**Operational**	**51.9/52.4**	**2005**	**SHOPP**	**$1,700,000**	**Caltrans**
Widened bridge and shoulders and added a two-way left-turn lane in Weaverville to reduce delay for left turning and improve safety from Bremer Street to Mountain View Street.						
In-Progress						
East Connector	**New Local Road**	**Weaverville**	**2009**	**STIP (RIP)**	**$6,070,000**	**Trinity County, Weaverville**
A new two-lane collector roadway along the east side of Weaverville connecting SR 299 at Glen Road to SR 3. This proposed project will include a bridge crossing over East Weaver Creek, a new traffic signal at the East Connector Roadway intersection with SR 299 and Glen Road, Class I and Class 2 bicycle lanes, and a pedestrian/bicycle bridge crossing of East Weaver Creek. The project will allow access to/from the east side of Weaverville without vehicles having to rely on SR 3/SR 299 through the historic downtown area.						
West Weaverville TE	**Traffic Calming**	**50.7/51.5**	**2010**	**STIP (RIP TE)**	**$158,000**	**Caltrans**
Traffic calming, pedestrian and bicycle enhancements 0.4 miles west of Minor Street to Court Street.						
Potential Future 20-Year						
Weaverville Pedestrian Connector	**TBD**	**52.1/52.7**	**TBD**	**TBD**	**TBD**	**TBD**
Connect sidewalk and bike lane on SR 299, east side of town.						
Capacity Expansion	**Capacity**	**50.62-53.43**	**TBD**	**TBD**	**TBD**	**Caltrans**
Yet-to-be-determined improvements to expand capacity and improve operation of SR 299 through Weaverville.						

SR 299 Transportation Concept Report - Segment Fact Sheet

General Information

County: Trinity **Route** 299 **Segment #:** 05TRI299 **Length Miles:** 18.8

Location: Weaverville to Shasta County Line **Exit #'s:** N/A **PM Limit** 53.43 / 72.25

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), High Emphasis Route, California Legal Network portions to PM 67.4, California Legal Advisory Route from PM 67.4, Interregional Transportation Strategic Plan (ITSP) Focus Route, Freeway/Expressway System, Trinity River Scenic Byway (USFS)

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 40-65 mph

Clear Recovery: 20 ft.

Typical Section: 2 lanes; 12 ft. lane width; 4 ft. outside shoulder.

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	1-2%
Terrain:	Rolling to Mountainous	**Lane Width:**	12 ft.
Percent Trucks:	5-15%	**Average Outside Shoulder:**	4 ft. or less

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	400-650	3200-6800	B
2015	450-750	3700-7700	C
2025	500-850	4350-8800	D

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
.44	.77	.52	1.13

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 5
Weaverville to Shasta County Line (TRI PM 53.43-72.25)

Segment Description

This segment runs from the eastern outskirts of the town of Weaverville to the Shasta County line.

This portion of State Route 299 is predominantly rural roadway passing through mountainous terrain. SR 3 is coincident (shares signs) with SR 299 between Douglas City and Weaverville.

Travel on this section of the corridor consists of regional and recreational trips, interregional trips linking rural communities and small urban areas, and local trips that include commuting to work, school, and local businesses.

This section also serves recreational travel and goods movement. Truck volumes range from 5-15% of ADT. The highest traffic volume is nearest to Weaverville.

This section of the corridor is 2-lane undivided conventional highway with the majority of treated shoulders 4 ft. or less. A portion of the highway traverses along the Trinity River, which is designated as "Wild and Scenic." Two additional parallel waterways, Weaver Creek and Grass Valley Creek, flow along portions of the segment.

Segment Issues

Key issues include:

- Shoulder widths are mostly 4-ft. along portions of this segment where the highway winds along and crosses the three waterways.
- Winter conditions are common in the higher elevations such Vitzhum Grade (Post Miles 61.0 to 62.9) and where the highway traverses towards Buckhorn Summit. Periodic heavy snows and more frequent lighter snows are typical.
- This segment passes near only one small community, Douglas City, with limited services. This condition poses a challenge during incidents due to low availability of gas, food, and lodging.
- Limited infrastructure is present along the majority of this segment. The remote areas lack public utilities, telephone, cell phone and emergency services.
- California Legal Advisory Classification between PM 67.4 to 72.25 and into the next segment.

Segment Management

This segment's challenges relate to terrain and environmental constraints that reduce practical opportunities for shoulder widening.

A Closed Circuit Television (CCTV) and a Roadside Weather Information System (RWIS) are both located at the Buckhorn Sandhouse PM 69.70. Also a permanent CMS is in place on State Route 299 near Buenaventura Blvd (SHA 299 PM 22.63) in the City of Redding for early warning to westbound traffic.

Future ITS elements planned for this segment are two CMS to be installed; one near Little Browns Creek PM 53.62 and another just east of Hwy 3 at PM 58.5. A Highway Advisory Radio System (HAR) is planned near Douglas City at PM 58.2.

299 Transportation Concept Report

Segment 5 - Weaverville to Shasta County Line

Caltrans

D2

SR 299 Transportation Concept Report (TCR)
Segment 5
Weaverville to Shasta County Line (TRI 299 PM 53.43-72.25)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
Roadway Rehabilitation near Weaverville	**Roadway Rehabilitation**	**53.5/60.8**	**2000**	**SHOPP**	**$3,900,000**	**Caltrans**
In Trinity County near Weaverville from Ponderosa Lane to 1.2 miles east of Indian Creek Bridge #5-19.						
Passing Lanes- Rocky Point	**Capacity**	**55.7/57.7**	**2006**	**STIP (RIP, IIP)**	**$4,200,000**	**Trinity County, Caltrans**
Added EB and WB passing lanes to improve mobility and safety.						
Curve Improvement- Sand House	**Safety**	**69.6/69.9**	**2006**	**SHOPP**	**$1,600,000**	**Caltrans**
Increased curve radius to improve safety and corridor mobility.						
Steel Bridge Road- Left Turn Lane	**Operational**	**60.8/61.2**	**2007**	**STIP/SHOPP**	**$1,137,000**	**Trinity County, Caltrans**
Add left turn lane to improve mobility and safety.						
Passing Lane- Sand House	**Capacity**	**69.4/70.5**	**2009**	**STIP (RIP, IIP) and SHOPP Minor**	**$5,446,000**	**Trinity County, Caltrans**
Add westbound passing lane, eastbound chain on area and westbound chain off area to improve mobility and safety.						
In-Progress						
No capacity projects or significant operational projects in progress.						
Potential Future 20-year						
Extend Existing EB and WB Passing Lanes	**Capacity/Operational**	**67.43/66.80**	**TBD**	**TBD**	**TBD**	**TBD**
Lengthen the existing eastbound passing lane to allow for passing to begin at the base of the grade. Extend westbound passing lane to begin just past Trinity Dam Boulevard and the Park and Ride facility.						

SR 299 Transportation Concept Report - Segment Fact Sheet

General Information

County: Shasta **Route** 299 **Segment #:** 06SHA299 **Length Miles:** 8.0

Location: Buckhorn **Exit #'s:** N/A **PM Limit** 0.0 / R8.02

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), California Legal Advisory Route, High Emphasis Route, Interregional Transportation Strategic Plan (ITSP) Focus Route, Freeway/Expressway System, Trinity River Scenic Byway (USFS)

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 40-50 mph

Clear Recovery: 20 ft.

Typical Section: 2 lanes; 12 ft. lane width; 4 ft. outside shoulder.

Concept LOS

C/D

Current Highway Information

Number of Lanes: 2 **Percent RVs:** 1%

Terrain: Mountainous **Lane Width:** 11-12 ft.

Percent Trucks: 13% **Average Outside Shoulder:** 2-5 ft.

Traffic Volume Ranges and LOS					Collision Rates			
Year	Peak Hour	Average Daily Traffic	LOS Unimproved	LOS Improved	Actual Collision Rates on Segment		Statewide Average for Highway Type	
					Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
2005	550	4000	E	N/A				
2015	600	4900	E	N/A	1.76	4.05	.83	1.66
2025	700	5400	E	C[1]				

Caltrans District 2, Office of System Planning and Traffic Census

[1]Reflects LOS that will result if Buckhorn Grade Improvement Project is completed.

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 6
Buckhorn Grade (SHA PM 0.0-R8.02)

Segment Description

This segment runs from the Trinity/Shasta County line to Crystal Creek Road in Shasta County.

There are no communities located in this segment.

Travel on this section of the corridor consists of regional trips, longer interregional trips, and recreational travel. This section serves recreational travel throughout the year with summer showing the highest traffic volumes. Also, goods movement composes a portion of the traffic. Truck volumes are 13% of ADT. The highest traffic volume is near French Gulch Road.

Currently, the segment consists of a 2-lane paved conventional highway with 12-ft. lanes, and paved outside shoulders ranging from 2 to 5-ft.

Segment Issues

Key issues include:

- This segment includes almost continuous reversing curves on a steep grade over extremely rugged terrain. Portions of this stretch have steep grades up to 6%. The curvilinear alignment has a design speed of 25 mph. There are three locations posted with curve warnings of 20 mph.
- The terrain consists largely of decomposed granite, which is highly erosive and unstable. Frequent slides and slip outs due to steep slopes along disintegrating granite formations are challenging and expensive to maintain. It is difficult to prevent this eroded material from discharging into adjacent waterways.
- Buckhorn Summit is located at PM 0.0, elevation 3212 ft. Harsh winter conditions are common in the higher elevations, where heavy snows are difficult to manage during severe weather.
- Accidents, motion sickness, and driving in long queues behind slow moving trucks and recreational vehicles (RVs) are common complaints from travelers.
- The Buckhorn Grade portion of SR 299 represents the most significant obstacle preventing interstate trucks and oversize permit loads from utilizing this direct access to the coast **(see Appendix D).** Goods movement is hindered because Surface Transportation Assistance Act (STAA) shipments on Interstate 5 must be repackaged into smaller loads.
- Portions of this segment fall within the tribal ancestral boundaries identified by the Redding Rancheria. See **Appendix J**.

Segment Management

Portable Changeable Message Signs are placed near Weaverville, as needed during winter storms, to warn travelers of slides or chain requirements. A permanent CMS is in place on State Route 299 near Buenaventura Blvd (SHA 299 PM 22.63) in the City of Redding for early warning to westbound traffic.

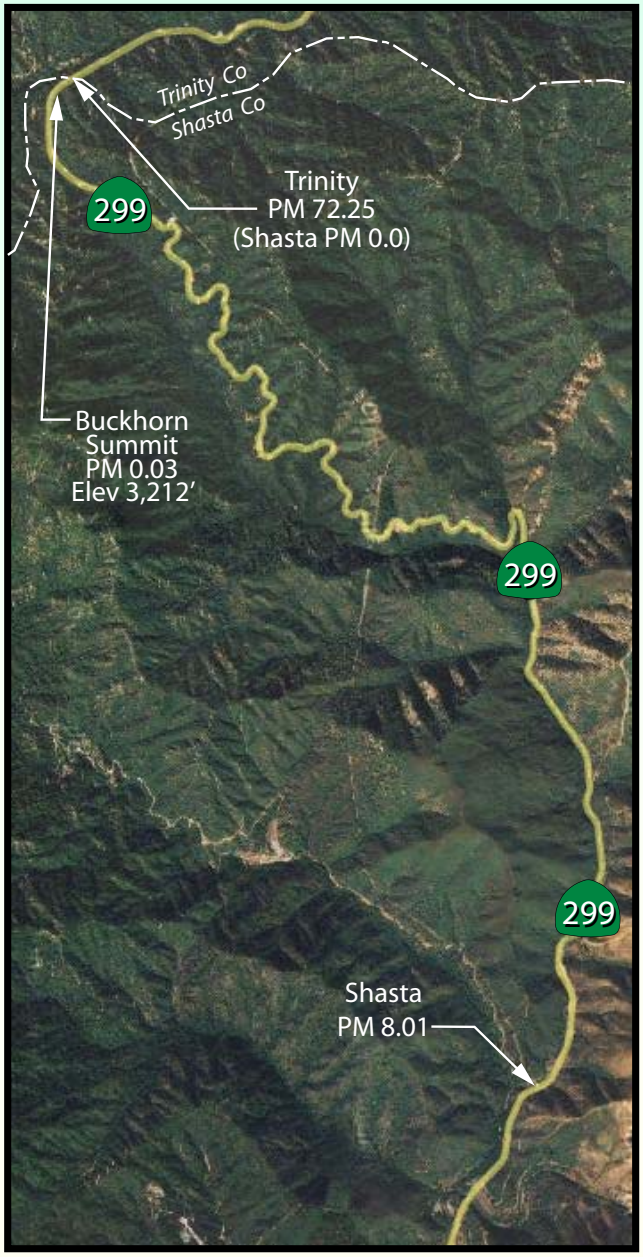
A permanent Roadside Weather Information System (RWIS) and Closed Circuit Television (CCTV) are both located just west of this section at Buckhorn Sand House Tri 299 PM 69.7.

Planned ITS elements within this segment include two RWIS, Three CCTVs and one CMS.

The Buckhorn Grade Improvement (BGI) project, EA 02-27031, has an approved environmental document. If constructed, it will improve design speed, safety, and accommodate STAA trucks. Recently, two of three stand-alone safety projects within the project limits (PMs TRI 72.0-SHA 7.6), were supplemented by High Priority Project funds obtained under SAFETEA-LU. These projects conform to the overall design concept and proposed alignment of BGI, and are consistent with a phased approach to construction.

299 Transportation Concept Report

Segment 6 - Buckhorn



NORTH
No Scale

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor

Completed

Crystal Creek Road CAPM	**Pavement Preservation**	**0.1/7.2**	**1999**	**SHOPP**	**$1,370,000**	**Caltrans**
Asphalt Concrete (AC) overlay in Shasta County From Trinity County to .8 miles west of Crystal Creek Road.						
Buckhorn Grade Improvement Project	**Realignment / Environmental Document**	**0.0/R11.9**	**2009 PA&ED**	**STIP (RIP/IIP)**	**$5,400,000**	**Shasta, Trinity and Humboldt Counties, Caltrans**
This project was funded only for the project approval and environmental document phase (PA&ED) of planning. The PA & ED phase was completed on 8-1-09. The project, once constructed, will provide a 45-55 mph design speed, improve safety, and accommodate STAA trucks. Funding the project as one large project has proven difficult. As such, the project is currently being designed in multiple smaller segments, which may enhance funding opportunities. Crucial to the segmented project approach is the construction of the middle portion of the Buckhorn Grade Improvement project. This middle portion cannot be broken into smaller segments and represents the most significant hurdle to the phased approached.						

In-Progress

Curve Improvement- Top of Buckhorn	**Safety**	**0.0/0.6**	**2008**	**SHOPP/HPP**	**$4,000,000**	**Shasta, Trinity and Humboldt Counties, Caltrans**
Increase curve radius to improve safety and corridor mobility. Conforms to the design of the Buckhorn Grade Improvement Project.						
Curve Improvement- Bottom of Buckhorn	**Safety**	**5.4/5.8**	**2009**	**SHOPP**	**$2,700,000**	**Caltrans**
Increase curve radius to improve safety and corridor mobility. Does not conform to the design of the Buckhorn Grade Improvement Project, but it is needed to address safety concerns.						
Curve and Shoulder Improvement- Yankee Gulch	**Safety**	**7.0/7.6**	**2009**	**SHOPP/HPP**	**$3,300,000**	**Shasta, Trinity and Humboldt Counties, Caltrans**
Increase curve radius to improve safety and corridor mobility. Conforms to the design of the Buckhorn Grade Improvement Project.						

Potential Future 20-Year

Curve and Shoulder Improvement Middle of Buckhorn	**Safety**	**SHA 3.0/4.3**	**2011**	**SHOPP**	**$10,500,000**	**Caltrans and Humboldt County**
Realign section of Buckhorn grade, increase curve radii, and widen paved shoulders.						
Two Gulches Curve Improvement	**Safety**	**SHA 4.3/5.5**	**2012**	**SHOPP**	**$9,000,000**	**Caltrans**
Improve alignment by replacing 15 existing curves with four curves; provide shoulders, increase sight distance and clear recovery zone.						
Buckhorn Grade Improvement Project	**Realignment**	**TRI 72.0/SHA 7.6**	**TBD**	**TBD**	**TBD**	**TBD**
The current cost not funded for completion of the full project is $171,000,000 (2006 dollars).						

General Information

County: Shasta **Route** 299 **Segment #:** 07SHA299 **Length Miles:** 13.6

Location: Crystal Creek Road to Redding City Limits **Exit #'s:** N/A **PM Limit** R8.02 / 21.65

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), High Emphasis Route, California Legal Network from PM 8.6, California Legal Advisory Route to PM 8.6. Interregional Transportation Strategic Plan (ITSP) Focus Route, Freeway/Expressway System, Trinity River Scenic Byway (USFS) to PM 18.5

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 40-65 mph

Clear Recovery: 20 ft.

Typical Section: 2 lanes; 12 ft. lane width; outside shoulder: 4 ft. (R8.02-14.0); 8 ft. (14.0-21.65).

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	1-2%
Terrain:	Mountainous to Rolling	**Lane Width:**	12 ft.
Percent Trucks:	4-14%	**Average Outside Shoulder:**	2-5 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	550-1400	4000-10600	C
2015	600-1450	4900-11800	D
2025	700-1600	5400-15600	D

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
.42	.94	.64	1.35

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 7
Crystal Creek Road to Redding City Limits (SHA R8.02-21.65)

Segment Description

This segment runs from Crystal Creek Road to the western city limits of Redding in Shasta County near Buenaventura Boulevard.

State Route 299 serves as a main street through the community of Shasta, sometimes referred to as "Old Shasta," which is on the National Register of Historical Places (Shasta State Historic Park). Remaining brick buildings of the old mining town line both sides of State Route 299.

Travel on this section of the corridor is regional, interregional and recreational. The highway is adjacent to Whiskeytown National Recreation Area (NRA). This segment links rural communities and small urban areas to US 101, Interstate 5 and US 395. Truck volumes range from 4-14% of ADT. The highest traffic volume is near the Redding City Limit. The majority of this section of the corridor is undivided 2-lane conventional with paved shoulder widths that vary from 2 to 5 ft.

The section of roadway between Old Shasta and the Whiskeytown Lake visitor's center is called the "Shasta Divide." This portion of the roadway is almost 2 miles in length and climbs steeply westward toward the lake. Paved shoulder widths are mostly 2-ft. in this location.

Segment Issues

Key issues include:

- Shoulders widths are narrow for a large portion of this segment and in the Shasta Divide which effects vehicle operations and bicycle use.
- Shasta Divide has 2 miles of steep westbound grade and operates one Level Of Service (LOS) lower in the summer months due to increased recreational vehicle (RV) and truck traffic, which lead to delays.
- This portion of State Route 299 has extensive recreational use in the summer between Redding and Whiskeytown Lake, which produces increased traffic volumes, pedestrian and bicycle activity at Whiskeytown and Old Shasta. Vehicles frequently park along the highway.
- Steep embankments along the roadway result in slides and falling rock during the rainy season.
- Whiskeytown Lake and Old Shasta have recognized environmental sensitivity.
- This segment falls within the tribal ancestral boundaries identified by Redding Rancheria. See **Appendix J**.
- Post Miles 8.01 through PM 8.6 are classified as California Legal Advisory.

Segment Management

This segment's challenges relate to terrain constraints and environmental sensitivity issues that reduce practical opportunities for shoulder widening and additional passing opportunities.

Recreational parking and high pedestrian activity during the summer months sometimes affect operations. Efforts to better define parking areas would be in partnership with the California State Parks and the National Park Service.

Other than a US Forest Service Closed Circuit Television (CCTV) and Highway advisory Radio, there are no existing state Intelligent Transportation System (ITS) elements within this segment.

Planned ITS elements within this segment include: Two CCTV at PMs 8.60 and 14.49, a Changeable Message Sign (CMS) at PM 8.7, two Roadside Weather Information Systems (RWIS) at PMs 8.72 and 14.49, and an Extinguishable Message Sign (EMS) at PM 12.6.

Context sensitive solutions principles and design features should be applied to future projects developed in the vicinity of Whiskeytown Lake and Old Shasta.

A westbound lane addition to the "Shasta Divide" between "Old Shasta" and Whiskeytown Lake would provide operational benefits.

299 Transportation Concept Report

Segment 7 - Crystal Creek Road to Redding City Limits

NORTH
No Scale

SR 299 TRANSPORTATION CONCEPT REPORT (TCR)
Segment 7
Crystal Creek Road to Redding City Limits (SHA 299 PM 8.02-21.65)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
Chip Seal (Rubberized)	**Highway Maintenance**	**PM 7.2/14.2**	**2005**	**SHOPP**	**$885,000**	**Caltrans**
.8 miles west of Crystal Creek Road to Whiskey Creek Bridge.						
In-Progress						
No capacity projects or significant operational projects in progress.						
Potential Future 20-Year						
Crystal Creek Road AC Surfacing	**Pavement Focus Rehabilitation**	**7.2/14.2**	**2012**	**Ten-Year SHOPP**	**TBD**	**Caltrans**
Asphalt concrete surfacing near Old Shasta from .5 miles west of Crystal Creek bridge.						
Shasta Divide	**Operational**	**16.5/18.3**	**TBD**	**TBD**	**TBD**	**TBD**
Add westbound truck climbing lane, shoulders and/or bike lane from Old Shasta to Whiskeytown National Recreation Area.						

SR 299 Transportation Concept Report - Segment Fact Sheet

General Information

County: Shasta **Route** 299 **Segment #:** 08SHA299 **Length Miles:** 2.4

Location: Redding City Limits to SR 273 **Exit #'s:** N/A **PM Limit** 21.65 / 24.09

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), California Legal Network, Interregional Transportation Strategic Plan (ITSP) Focus Route, High Emphasis Route, Freeway/Expressway System

Bicycle Status: Allowed

Facility Concept

Present: 4C

Twenty-Year: 4C

Long Range: 4C

Future Design Concept

Design Speed: 30-60 mph

Clear Recovery: 5-20 ft.

Typical Section: 2 lanes; 12 ft. lane width; 8 ft. outside shoulder.

Concept LOS

C/D

Current Highway Information

Number of Lanes:	4	**Percent RVs:**	1%
Terrain:	Rolling	**Lane Width:**	12 ft.
Percent Trucks:	2-3%	**Average Outside Shoulder:**	8 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	930-2700	10600-23000	C
2015	1000-2750	11700-26500	C
2025	1400-2900	15600-31500	D

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
1.17	2.98	1.13	2.58

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 8
Redding City Limits to State Route 273 (SHA 21.65-24.09)

Segment Description

This segment runs from the western city limits of Redding to State Route 273 (Market Street).

Travel on this section of the corridor is predominantly local; with some recreational and interregional travel and goods movement. Truck volumes range from 2-3% of ADT. The highest traffic volumes are near SR 273 near downtown Redding.

This portion of the route within Redding is a 4-lane conventional facility with numerous driveways and signalized intersections.

Here the highway serves mostly localized traffic accessing downtown commercial, neighborhood commercial, medical, and service oriented development near the downtown Redding area.

The majority of this section of the corridor is undivided 4-lane conventional with paved shoulder widths of mostly 8 ft. with exception of the east most quarter mile of highway closest to downtown where the travelled way abuts curbside to the sidewalk.

Signalized Intersections	
Post Mile	**Intersection**
22.23	Buenaventura
23.23	Walnut Avenue
23.47	Magnolia Street
23.81	Court Street
24.02	California Street
24.08	Market Street

Segment Issues

Key issues include:

- This segment has the second highest average daily traffic of all the segments on this route.
- Vehicle traffic increases considerably in the Greater Redding Area. The highway passes through the commercial downtown area where the posted speed ranges from 30-45 mph.
- There are two high schools and two elementary schools in the vicinity of this segment. The additional morning and afternoon traffic generated from these schools often leads to congestion along SR 299.
- Additional focal points that draw traffic to this area include several medical clinics, retail stores, service businesses, local restaurants, and fast food establishments.
- Pedestrian and bicycle traffic are frequent.
- The hub of the Redding Area Bus Authority (RABA) is located on Yuba Street (three city blocks from this route). This is a multimodal connection point shared with Greyhound bus services and Amtrak. This station offers multimodal opportunities for longer north/south travel.
- This segment falls within the tribal ancestral boundaries identified by the Redding Rancheria. See **Appendix J**.
- Redding railroad overhead at PM 23.91

Segment Management

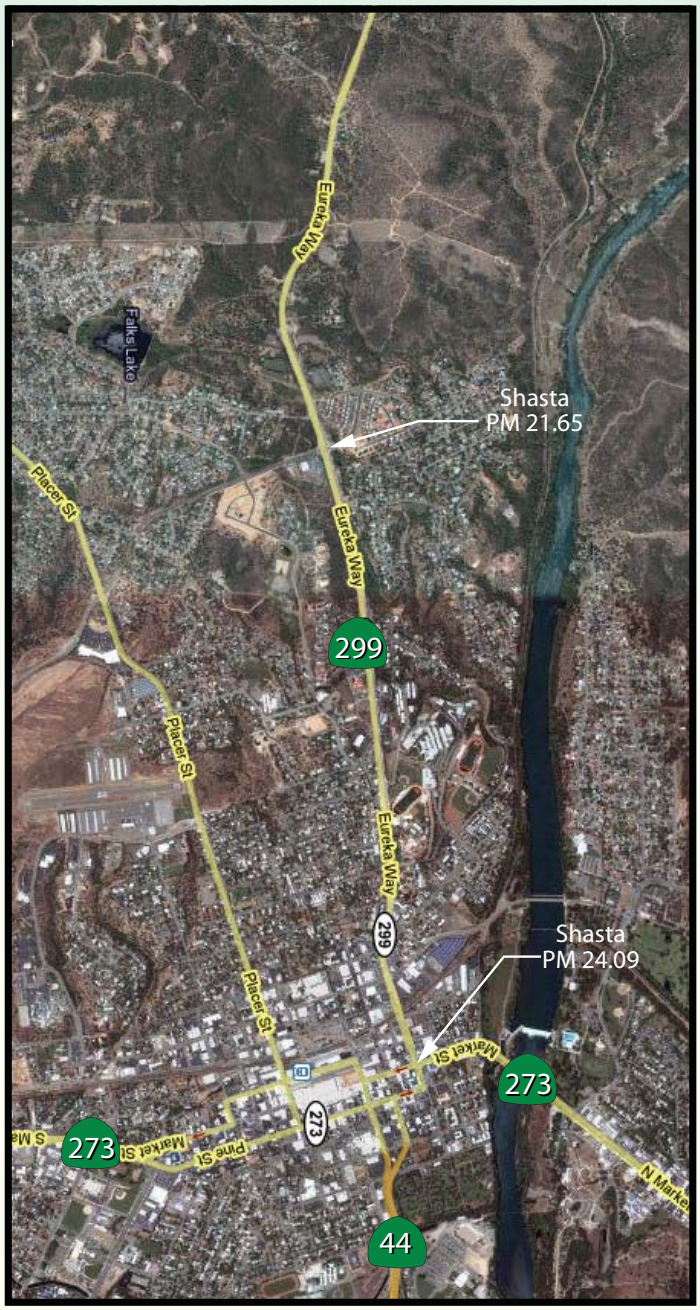
This segment's challenges relate to higher traffic volumes and signalized intersections affecting the flow of mainline traffic.

As traffic counts continue to rise traffic signals may benefit from further evaluation to maintain safety and satisfactory operations. Detector technology may offer possible improvements to safety and operations at intersections and pedestrian/ bike crossings.

Changeable Message Signs are in place near the Buenaventura Boulevard intersection (West PM 21.90 and east PM 22.61). There is also an existing highway Advisory Flasher (PM 21.88) and a Closed Circuit Television (PM 22.61).

299 Transportation Concept Report

Segment 8 - Redding City Limits to SR 273 (Route Break)



NORTH
No Scale

Caltrans

D2

SR 299 Transportation Concept Report (TCR)
Segment 8
Redding City Limits to SR 273 (SHA 21.65 - 24.09)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor

Completed

Eureka Way	**Roadway Rehabilitation**	**SHA 299 PM 20.3/27.7**	**2004**	**SHOPP**	**$11,200,000**	**Caltrans**
Portland Concrete Cement and Asphalt Concrete overlay from approximately .06 mi west of Iron Mountain Road to Court Street.						
Redding Downtown Improvement Project	**Operational**	**SHA 273/16.7/17.0**	**2007**	**STIP (RIP/IIP)**	**$2,100,000**	**Shasta County, Caltrans**
Improve operations in downtown Redding by realigning and shifting the downtown couplet. This project added capacity at the Eureka Way/North Market Street intersection. Other minor area improvements included turning radius changes and increased lane widths designed to help larger trucks pass safely through downtown. The signal at the intersection of California Street and Tehama Street was modified and traffic stripe was placed at Tehama Street to allow an eastbound lane of traffic from California Street to Pine Street and beyond.						

In-Progress

Redding Eleventh St. Signals	**Safety**	**SHA 23.7**	**2010**	**SHOPP**	**$609,000**	**Caltrans**
Install Signals – In Redding at Eleventh Street.						

Potential Future 20-Year

No capacity projects or significant operational projects proposed.

SR 299 Transportation Concept Report - Segment Fact Sheet

General Information

County: Shasta **Route** 299 **Segment #:** 09SHA299 **Length Miles:** 0.7

Location: SR 273 to I-5 Junction **Exit #'s:** N/A **PM Limit** 24.09 / 24.82

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Strategic Highway Network (STRAHNET), Interregional Road System (IRRS), California Legal Network, Freeway/Expressway System

Bicycle Status: Prohibited from PM 24.6

Facility Concept

Present: 4C

Twenty-Year: 4C

Long Range: 4C

Future Design Concept

Design Speed: 50-65 mph

Clear Recovery: 5-20 ft.

Typical Section: 2 lanes; 12 ft. lane width; 8 ft. outside shoulder.

Concept LOS

C/D

Current Highway Information

Number of Lanes:	4	**Percent RVs:**	1%
Terrain:	Rolling	**Lane Width:**	12 ft.
Percent Trucks:	3%	**Average Outside Shoulder:**	8 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	1900-2500	18900-26500	C
2015	2100-2600	21400-28500	D
2025	2200-2900	24000-30500	D

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
1.16	2.70	1.97	4.95

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 9
SR 273 to I-5 Junction (SHA 24.09-24.82)

Segment Description

This segment runs from SR 273 to the I-5 Junction within the city limits of Redding in Shasta County.

Travel on this section of the corridor is mixed local with some regional and interregional. Truck volumes are 3% of ADT. The highest traffic volume is near the I-5 separation.

This segment links Downtown Redding via SR 273 (North Market Street) Dana/Hilltop Commercial, Lake Boulevard commercial and I-5. It also provides access to Old Oregon Trail that can be used to get to Oasis Road and I-5 to the north and to reach Old Alturas which connects to SR 44 to the south.

This portion of State Route 299 serves as a connector to multiple adjacent commercial zones serving mostly local and regional traffic, and provides access to I-5 serving interregional, regional and local travel.

This section of the corridor is a 4-lane conventional facility with traffic signals and 8 ft. paved shoulders with rolling terrain.

Signalized Intersections	
Post Mile	**Intersection**
24.24	Hilltop
24.39	Erickson Way
24.45	N. Boulder Drive & Black Marble Way

Segment Issues

Key issues include:

- This segment has the highest average daily traffic volumes of all the segments on this route.
- The three signalized intersections require slowing and stopping at regular intervals in this segment with a posted speed limit of 45 mph. The need to allow crossing of minor traffic movements interrupts steady traffic flows on mainline.
- Pedestrian and bicycle traffic is typical here.
- This segment falls within the tribal ancestral boundaries identified by the Redding Rancheria. **See Appendix J**.

Segment Management

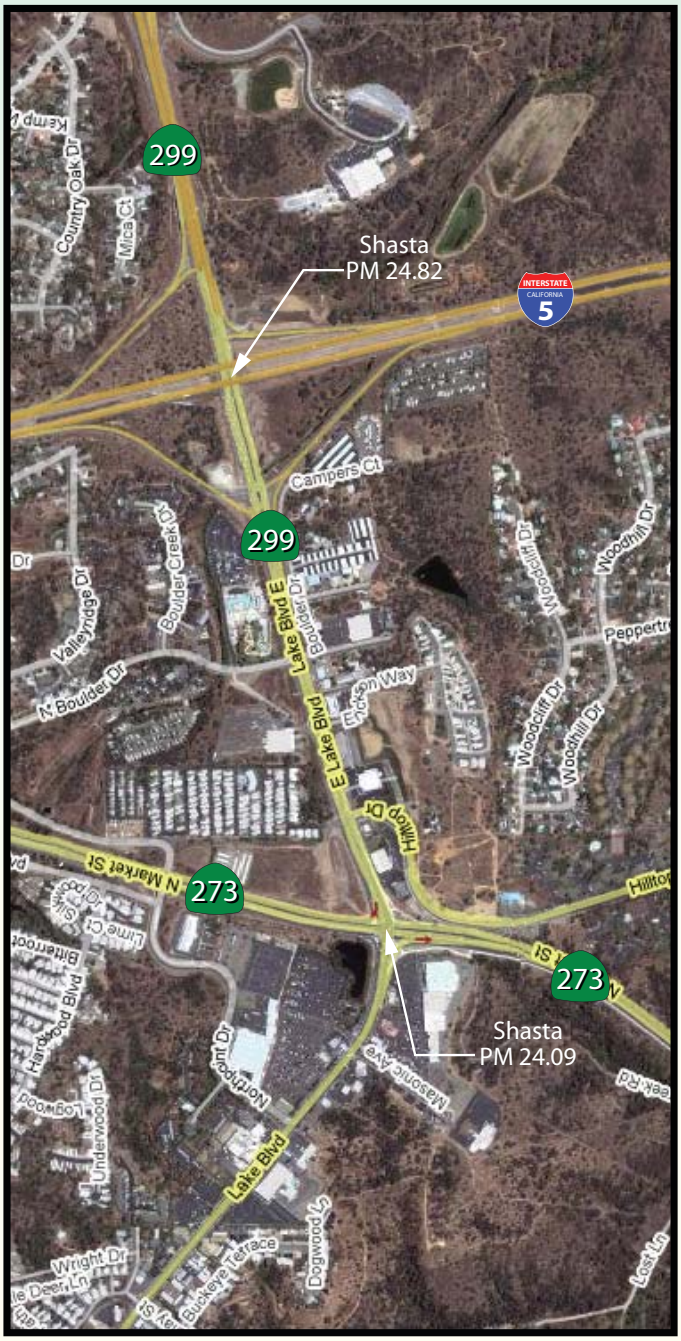
This segment's challenges relate to higher traffic volumes and signalized intersections affecting the flow of mainline traffic.

As traffic counts continue to rise traffic signals may benefit from further evaluation to maintain safety and satisfactory operations. Detector technology may offer possible improvements to safety and operations at intersections and pedestrian/ bike crossings.

There are no existing state Intelligent Transportation System (ITS) elements within this segment. However there is a Changeable Message Sign (CMS) and a Highway Advisory Radio Flasher (HAR Flash) in the next segment, both at Hawley Road. There are no ITS elements planned for this segment.

299 Transportation Concept Report

Segment 9 - SR 273 to I-5 Junction



NORTH
No Scale

Caltrans

D2

SR 299 Transportation Concept Report (TCR)
Segment 9
SR 273 to I-5 Junction (SHA 24.09 – 24.82)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor

Completed

North Market Street	**Roadway Rehabilitation**	**24.0/27.5**	**2000**	**SHOPP**	**$4,700,000**	**Caltrans**
In Shasta County in Redding on Route 299 from North Junction Route 273 to Pine Street (SHA 299 PM 24.0/27.5) and on Route 273 from Wyndham Lane to Sacramento River Bridge (SHA 273 PM 14.9/17.1).						

In-Progress

No capacity projects or significant operational projects in progress.

Potential Future 20-Year

No capacity projects or significant operational projects planned.

SR 299 Transportation Concept Report - Segment Fact Sheet

General Information

County: Shasta **Route** 299 **Segment #:** 10SHA299 **Length Miles:** 2.9

Location: I-5 to End Freeway **Exit #'s:** 141 and 143 **PM Limit** 24.82 / 27.75

System Designations

Functional Classification: Principal Arterial

Other Classifications:
Interregional Road System (IRRS), Surface Transportation Assistance Act (STAA) Network, Terminal Access from PM 24.82, Freeway/Expressway System

Bicycle Status: Prohibited PM 24.82 to PM 27.4

Facility Concept

Present: 4F

Twenty-Year: 4F

Long Range: 4F

Future Design Concept

Design Speed: 55-80

Clear Recovery: 30 ft.

Typical Section: 2 lanes; 12 ft. lane width; 10 ft. outside shoulder.

Concept LOS

C/D

Current Highway Information

Number of Lanes: 4

Terrain: Rolling

Percent Trucks: 3-5%

Percent RVs: 1%

Lane Width: 12 ft.

Average Outside Shoulder: 8-10 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	1100-2250	9900-22600	B
2015	1300-2900	11600-27000	C
2025	1400-3500	13300-30500	C

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
0.26	0.81	0.23	0.55

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 10
I-5 Junction to End Freeway (SHA 24.82-27.75)

Segment Description

This segment runs from the I-5 Junction to the end of the freeway on the eastern outskirts of the Greater Redding Area in Shasta County.

Travel on this section of the corridor is mixed local with some regional and interregional travel. The segment provides access to several nearby residential zones, some mixed commercial use, as well as both Simpson University and Shasta Community College. SR 299 here provides connection to I-5 which serves regional, interregional and local travel. It also connects to both Old Oregon Trail and Old Alturas Road which can be used to access SR 44 to the south.

Truck volumes are 3-5% of ADT. The highest traffic volume is near I-5.

Travel on this section of the corridor is mixed local with some regional and interregional. Truck volumes are 3% of ADT. The highest traffic volume is near the I-5 separation.

This section of the corridor is 4-lane freeway with 10 ft. paved shoulders. Terrain is rolling (over 3% grade) in this segment.

Segment Issues

Key issues include:

- Traffic merges into 2-lane conventional highway as the freeway ends just east of Oregon Trail.
- Two local road interchanges are in this segment at Hawley Road (PM 25.54) and Old Oregon Trail (PM 27.22).
- The freeway crosses over Stillwater Creek in two locations (PM 27.28 and PM 27.94)
- This segment falls within the tribal ancestral boundaries identified by the Redding Rancheria. **See Appendix J**.

Segment Management

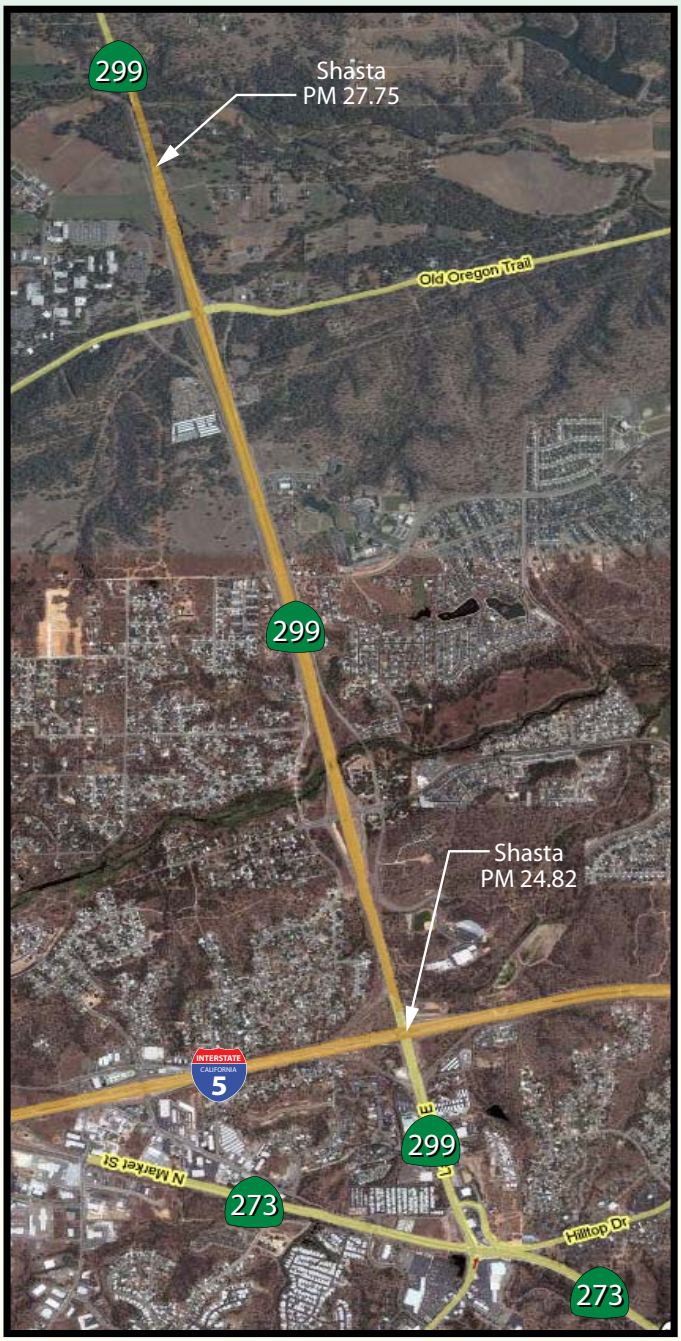
This segment's challenges relate to higher traffic volumes generated by the two colleges and residential developments.

Existing state Intelligent Transportation System (ITS) elements within this segment consist of a Changeable Message Sign (CMS) at PM 25.07, a HAR Flasher PM 25.40, and a Traffic Monitoring System (TMS) at PM 27.11.

Future ITS elements planned for this segment are: three Changeable Message Signs at PM 25.30, PM 26.0 and PM R27.22, and two Closed Circuit Televisions (CCTVs) at PM 25.54 and PM R27.2.

299 Transportation Concept Report

Segment 10
I-5 Junction to End Freeway



NORTH
No Scale

Caltrans

D2

SR 299 Transportation Concept Report (TCR)
Segment 10
I-5 Junction to End Freeway (SHA 24.82 - 27.75)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
Traffic Detection System	**Safety – Transportation Management**	**SHA 25.1/27.0**	**2001**	**Minor A**	**$313,000**	**Caltrans**
Install Traffic Detection System.						
Pavement Rehabilitation	**Roadway Rehabilitation**	**SHA 25.1/27.7**	**2004**	**Minor A**	**$740,000**	**Caltrans**
Rehabilitate Failed Pavement.						
Lake Blvd Off-Ramp Signals	**Safety**	**SHA 27.8**	**2005**	**SHOPP**	**$748,000**	**Caltrans**
Widen Road, Install Signals and Lighting at I-5/SR 299 Separation – In Redding.						
Shasta College Ramps	**Safety**	**SHA 26.8/27.2**	**2006**	**SHOPP**	**$1,300,000**	**Caltrans**
Lengthen Ramp and Realign Vertical Curve to Improve Sight Distance – Near Redding.						
In-Progress						
No capacity projects or significant operational projects in progress.						
Potential Future 20-Year						
Interchange Improvements	**Operational Improvements**	**SHA 25.3/25.4**	**TBD**	**TBD**	**TBD**	**TBD**
Improve Churn Creek Road Interchange – Add Turning Lanes and Signals.						
Auxiliary Lane	**Operational Improvements**	**SHA 25.7/27.0**	**TBD**	**TBD**	**TBD**	**TBD**
Construct Auxiliary Lane – Hawley Road to Old Oregon Trail.						
East Redding Bike Lanes	**Operational Improvements**	**SHA 25.7/27.2 (Off System)**	**2009**	**RA STATE-TE**	**$448,000**	**Shasta County**
(Phase 1) Off System bike path connecting to existing bikeway that parallels SR 299. This portion is on College View Drive and will connect to Old Oregon Trail.						

General Information

County: Shasta **Route** 299 **Segment #:** 11SHA299 **Length Miles:** 46.3

Location: End Freeway to Burney **Exit #'s:** N/A **PM Limit** 27.75 / 74.12

System Designations

Functional Classification: Minor Arterial

Other Classifications:
Strategic Highway Network (STRAHNET) portions PM 0.0-24.82, Interregional Road System (IRRS), Surface Transportation Assistance Act (STAA) Network, Terminal Access, Freeway/Expressway System

Bicycle Status: Permitted

Facility Concept

Present: 2E/2C

Twenty-Year: 2E/2C

Long Range: 2E/2C

Future Design Concept

Design Speed: 40-65

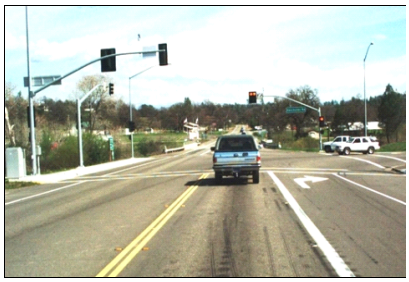
Clear Recovery: 20 ft.

Typical Section: 2 lanes; 12 ft. lane width; outside shoulder: 8 ft. (27.75-40.90,52.44-56.90,71.58-74.12) and 4 ft. (40.90-52.44, 56.90-71.58).

Concept LOS
C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	1-2%
Terrain:	Rolling to Mountainous	**Lane Width:**	11-12 ft.
Percent Trucks:	5-18%	**Average Outside Shoulder:**	1-4 ft



Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	220-790	2750-7500	B
2015	300-800	3200-8700	B
2025	350-900	3700-9500	C

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
0.50	1.06	0.60	1.27

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 11
End Freeway to Tamarack Road in Burney (SHA 27.75-74.12)

Segment Description

This segment runs from the end of the freeway near the city limits of Redding to Tamarack Road near the community of Burney in Shasta County.

State Route 299 serves as a main street through the communities of Bella Vista, Ingot, Round Mountain and Montgomery Creek.

Travel on this section of the corridor is regional, interregional and recreational. This segment links rural communities to Interstate 5. Truck volumes range from 5-18% of ADT. The highest traffic volume is near Burney.

The majority of this section of the corridor is undivided 2-lane conventional with paved shoulder widths that vary from 1 to 4 ft with exception of wider shoulders within the communities of Round Mountain and Montgomery Creek.

Signalized Intersections	
Post Mile	**Intersection**
31.47	Deschutes Road

The section of roadway between Redding and Burney climbs eastward toward SR 89 with an elevation increase of over 3000 feet.

This portion of State Route 299 frequently serves increased levels of recreational traffic in the summer months.

Segment Issues

Key issues include:

- There are several steep grades in this segment (up to 6.5%) between Post Miles 41.5-62.0 and 68.2-71.6.
- A desire has been expressed by members of the public to consider options that may discourage traffic from moving quickly through the communities of Round Mountain and Montgomery Creek.
- The Round Mountain School, Community Clinic, a retail store, Post Office and trailer park attract pedestrian and bicycle activity. Currently there is not separated bicycle/pedestrian facilities.
- Shoulders widths are narrow (1 ft.) between PM 41.9 and PM 45.8.
- Steep embankments in some areas result in slides and falling rock during the rainy season.
- Dense forest along the route and switch-back curves limit site distance and limit opportunities to react to wild life crossing the highway.
- Between Old Oregon Trail and Deschutes Road near Bella Vista, also in the communities of Round Mountain and Montgomery Creek, there are multiple access points for driveways and/or local roads that produce turning movements.
- This segment falls within the tribal ancestral boundaries identified by the Pit River Tribe. The Pit River Rancheria is located at Tamarack Road. Near this intersection the Tribe also operates the Pit River Casino. **See Appendix J**.
- The Montgomery Creek Indian Rancheria is located in the community of Montgomery Creek. See **Appendix J**.

Segment Management

This segment's challenges relate to terrain constraints that reduce practical opportunities for shoulder widening. Rocky slopes require frequent maintenance during inclement weather.

Existing Intelligent Transportation System (ITS) elements within this segment consist of a HAR Flasher PM 28.38, and both a CCTV and RWIS at PM 68.18.

Consider additional Turnouts or Truck Climbing lanes along steep grades near Diddy Wells, Round Mountain, Montgomery Creek, and HillCrest to improve operations. Public comments indicated interest for these additional features anywhere there is a steep grade.

Consider turn pockets to improve operations in locations with concentrations of localized turn movement activity.

Additional turn lanes, two way left turn lanes, cross walks and other context sensitive solutions principles and design features should be considered when developing future projects within communities. As an example, a left turn pocket may benefit operations in Round Mountain at Terry Mill Road.

Interest has been expressed for and off system trail away from the highway from Round Mountain to Montgomery Creek. The public suggested Buzzard Roost Road to Big Bend Road.

299 Transportation Concept Report

Segment 11
End of Freeway to Burney (Tamarack Road)

NORTH
No Scale

Caltrans

D2

SR 299 Transportation Concept Report (TCR)
Segment 11
End Freeway to Tamarack Road (Burney) (SHA 27.75 - 74.12)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
Burney Rehab	**Roadway Rehabilitation**	**SHA 67.8/74.1**	**1998**	**SHOPP**	**$9,040,000**	**Caltrans**
Roadway Rehabilitation – Near Burney.						
Roadway Realignment	**Operational Improvements**	**SHA 48.1/48.7**	**1999**	**SHOPP**	**$5,668,000**	**Caltrans**
Realign Roadway.						
Hatchet Mountain CAPM	**Pavement Preservation**	**SHA 60.0/70.0**	**2001**	**SHOPP**	**$4,080,000**	**Caltrans**
Asphalt Overlay.						
Oak Knolls Two-Way Left Turn Lane	**Safety**	**SHA 32.0/32.3**	**2004**	**Minor A**	**$405,000**	**Caltrans**
Widen Roadway for Two-Way Left Turn Lane.						
Deschutes Rd Signal and Overlay	**Safety – Transportation Management**	**SHA 31.2/31.7**	**2005**	**Minor A**	**$400,000**	**Caltrans**
Signalize Intersection.						
Replace Asphalt Concrete	**Pavement Preservation**	**SHA 31.0/41.0**	**2006**	**SHOPP**	**$750,000**	**Caltrans**
Mill and Replace Asphalt Concrete – Near Redding.						
Fountain Curve Realignment and extend Climbing Lane	**Safety and Operational**	**SHA 50.7/51.9**	**2006**	**SHOPP**	**$8,220,000**	**Caltrans**
Highway Realignment.						
Hatchet Mountain CCTV & RWIS	**Transportation Management**	**SHA 68.2**	**2007**	**Minor A**	**$425,000**	**Caltrans**
Install CCTV – Hatchet Mountain.						
Intermountain Gap CAPM	**Pavement Preservation**	**SHA 29.6/30.3**	**2008**	**Minor A**	**$670,000**	**Caltrans**
Asphalt Overlay – Inter-Mountain.						
Kawa Honda/Bella Vista Driveway Modification	**Operational Improvements**	**SHA 31.8/32.1**	**2008**	**Minor A**	**$218,000**	**Caltrans**
Driveway Connection Modifications – Kawa Honda.						
Fountain Curve Emergency Restoration	**Major Damage Restoration**	**SHA 50.7/51.9**	**2008**	**SHOPP**	**$2,000,000**	**Caltrans**
Repair Storm Damage – Fountain Curve.						
Hillcrest Left Turn Lane	**Operational Improvements**	**SHA 60.4/60.8**	**2008**	**Minor A**	**$525,000**	**Caltrans**
Install Westbound Left Turn Lane and Lighting – Hillcrest.						

SR 299 Transportation Concept Report (TCR)
Segment 11 (continued)
End Freeway to Tamarack Road (Burney) (SHA 27.75 - 74.12)

Segment Projects/Potential Improvements

In-Progress

Name	Type	Location	Year	Program	Cost	Sponsor
Backbone EB Shoulders	**Safety**	**SHA 41.1/41.3**	**2009**	**Minor A**	**$210,000**	**Caltrans**
Add Shoulders in Eastbound Direction – Near Ingot.						
Rock Fall Fencing	**Maintenance**	**SHA 70.6**	**2009**	**SHOPP**	**$46,000**	**TBD**
Modify base of slope to remove loose rock material and provide rock fall fencing.						
Fountain Curve Emergency Restoration	**Roadway Protective Betterment**	**SHA 51.0/52.2**	**2009**	**SHOPP**	**$7,000,000**	**Caltrans**
Repair Slope – Emergency Fountain Curve.						
Montgomery Creek CAPM	**Pavement Preservation**	**SHA 40.7/60.0**	**2012**	**SHOPP**	**$20,413,000**	**Caltrans**
Asphalt Overlay – Near Montgomery Creek.						
Bella Diddy Rehabilitation	**Roadway Rehabilitation**	**SHA 30.3/40.7**	**2014**	**SHOPP – Long Lead**	**TBD**	**Caltrans**
Roadway Rehabilitation – Bella Vista/Diddy Wells. Project is in PA&ED phase.						

Potential Future 20-Year

Two-Way Left Turn Lane	**Operational Improvements**	**SHA 27.9/32.0**	**TBD**	**TBD**	**TBD**	**TBD**
Construct Two-Way Left Turn Lane – Through Bella Vista.						
Thin Blanket Overlay	**Pavement Preservation**	**SHA 60.0/74.1**	**TBD**	**TBD**	**TBD**	**TBD**
Thin Blanket Overlay – Near Big Bend Road to Black Ranch Road.						
Extend Passing Lanes	**Operational Improvements**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**
Extend existing passing lanes near Dubois Road near Round Mountain and Woodhill Drive near Montgomery Creek.						
EB & WB Passing Lanes	**Operational Improvements**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**
Add eastbound and westbound passing lanes west of Javelina Road near Post Mile 38.0.						

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General Information

County: Shasta **Route** 299 **Segment #:** 12SHA299 **Length Miles:** 5.9

Location: Burney to SR 89 Junction **Exit #'s:** N/A **PM Limit** 74.12 / 80.09

System Designations

Functional Classification: Minor Arterial

Other Classifications:
Strategic Highway Network (STRAHNET) portions PM 0.0-24.82, Interregional Road System (IRRS), Surface Transportation Assistance Act (STAA) Network, Terminal Access, Freeway/Expressway System

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 40-65

Clear Recovery: 5-20 ft.

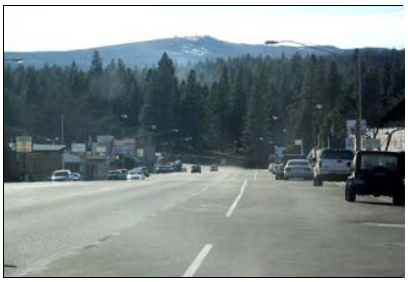
Typical Section: 2 lanes; 12 ft. lane width; 4 ft. outside shoulder

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	1-2%
Terrain:	Rolling to Mountainous	**Lane Width:**	11-12 ft.
Percent Trucks:	6-18%	**Average Outside Shoulder:**	2-4 ft.



Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	300-840	3350-10000	B
2015	350-1000	4300-11500	B
2025	400-1100	4800-12800	B

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
0.44	1.08	0.64	1.38

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 12
Burney to State Route 89 Junction (SHA PM 74.12- PM 80.09)

Segment Description

This segment runs from Tamarack Road near the community of Burney to the junction of SR 89 in Shasta County.

State Route 299 serves as a main street through the community of Burney and Johnson Park.

Travel on this section of the corridor is regional, interregional and recreational. This segment links rural communities and small urban areas to SR 89. Truck volumes range from 6-18 % of ADT. The highest traffic volume is in Burney.

The majority of this section of the corridor is undivided 2-lane conventional with paved shoulder widths that vary from 2 to 4-ft with exception of wider shoulders (8-12 ft.) in and near Burney.

Signalized Intersections	
Post Mile	**Intersection**
75.27	Burney Hudson Street North
75.47	Burney Mountain View North

This portion of State Route 299 frequently serves as access to nearby recreational attractions. McArthur-Burney Falls Memorial State Park featuring Burney Falls and Lake Britton are within 10 miles of SR 299 to the north on intersecting SR 89. SR 299 used in conjunction with State Routes 89 and 44 makes a scenic driving loop popular for summertime travelers seeking cooler temperatures, recreational activities and visiting Lassen Volcanic National Park.

Segment Issues

Key issues include:

- A few locations in this segment have narrow Shoulders widths (2 ft.).
- Steep embankments along the roadway result in slides and falling rock during the rainy season.
- Summer months produce increased traffic volumes with more pedestrian and bicycle activity within the community of Burney.
- Vehicles entering and exiting the highway for commercial businesses along SR 299 in Burney affect traffic operations. Left turning vehicles slow the traffic.
- The Burney Express provides daily round trip service between Burney and Redding. This route allows for transfers to other services provided by Redding Area Bus Authority (RABA).
- This entire segment falls within the tribal ancestral boundaries identified by the Pit River Tribe. See **Appendix J**.

Segment Management

This segment's challenges relate to terrain constraints that reduce practical opportunities for shoulder widening. Rocky slopes require frequent maintenance during inclement weather.

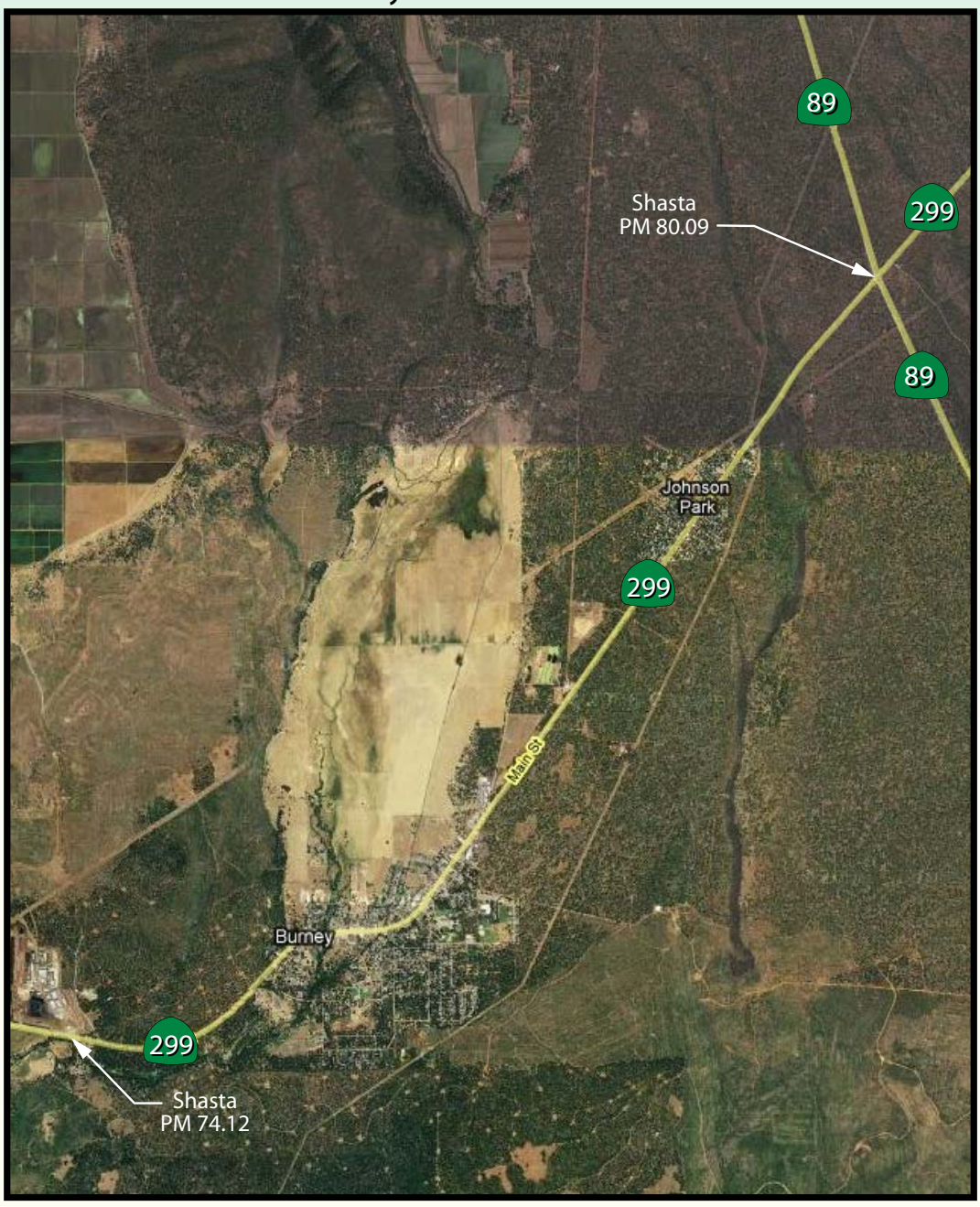
Existing state Intelligent Transportation System (ITS) elements within this segment consist of a HAR Flasher at PM 79.70, and a Closed Circuit Television (CCTV) at PM 80.08.

Planned ITS elements include: two Changeable Message Signs; one on the west end of Burney (PM 73.13), and another CMS east of Johnson Park (PM 78.85), and a CCTV near Mountain View Road (PM 75.47).

Public interest was expressed to consider either turn pockets or a traffic signal at Commercial Drive to handle cross traffic. There are several businesses including the Post Office that attract traffic.

299 Transportation Concept Report

Segment 12
Burney to SR 89 Junction



Caltrans

NORTH
No Scale

D2

SR 299 Transportation Concept Report (TCR)
Segment 12
Tamarack Road (Burney) to SR 89 Junction (SHA 74.12 - 80.09)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
*** Burney Rehab**	**Roadway Rehabilitation**	**SHA 74.1/77.9**	**1998**	**SHOPP**	**$9,040,000**	**Caltrans**
Roadway Rehabilitation – Near Burney.						
* This project spans Segments 11 and 12.						
Burney Maintenance Station	**Maintenance Facilities**	**SHA 75.6**	**2002**	**SHOPP**	**$4,619,000**	**Caltrans**
Construct Various Buildings – Burney Maintenance Station.						
Downtown Burney Thin Blanket Overlay	**Pavement Preservation**	**SHA 74.5/76.1**	**2008**	**Maintenance**	**$3,332,000**	**Caltrans**
Thin Blanket Overlay – Downtown Burney.						
Fuel Facility at Burney Maintenance Station	**Maintenance Facilities**	**SHA 75.6**	**2008**	**Minor A**	**$450,000**	**Caltrans**
Construct Fuel Facility – Burney Maintenance Station.						
In-Progress						
No capacity projects or significant operational projects in progress.						
Potential Future 20-Year						
Burney Creek Scour	**Bridge Scour Mitigation**	**SHA 74.85**	**TBD**	**TBD**	**TBD**	**TBD**
Bridge Scour Mitigation.						
Johnson Park CAPM	**Pavement Preservation**	**SHA 77.8/79.6**	**TBD**	**TBD**	**TBD**	**Caltrans**
Roadway Rehabilitation – Johnson Park.						

SR 299 Transportation Concept Report - Segment Fact Sheet

General Information

County: Shasta **Route** 299 **Segment #:** 13SHA299 **Length Miles:** 19.2

Location: SR 89 Junction to SHA/LAS County line **Exit #'s:** N/A **PM Limit** 80.09 / 99.36

System Designations

Functional Classification: Minor Arterial

Other Classifications:
Surface Transportation Assistance Act (STAA) Network, Terminal Access, Freeway/Expressway System

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 55-70

Clear Recovery: 20 ft.

Typical Section: 2 lanes; 12 ft. lane width; outside shoulder: 4 ft. (80.09-89.56); 8 ft. (89.56-99.36).

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	1%
Terrain:	Flat	**Lane Width:**	11-12 ft.
Percent Trucks:	7-10%	**Average Outside Shoulder:**	2-4 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	310-530	2900-4700	B
2015	350-600	3100-5200	B
2025	400-600	3300-5400	B

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
0.40	0.85	0.57	1.18

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 13
State Route 89 Junction to SHA/LAS County Line (SHA PM 80.09-99.36)

Segment Description

This segment runs from the junction of SR 89 to the Shasta /Lassen County line.

State Route 299 serves as a main street through the communities of Fall River Mills and McArthur.

Travel on this section of the corridor is regional, interregional and recreational. This segment links rural communities and small urban areas to SR 89.

This section of the corridor is undivided 2-lane conventional with paved shoulder widths that are mostly 2 to 4-ft with exception of 8 ft shoulders on the following three bridges: Hat Creek, Pit River and Fall River; and within the community of Fall River Mills.

Truck volumes range from 7-10% of ADT. The highest traffic volumes are near SR 89 Jct.

This portion of State Route 299 frequently serves as access to nearby recreational attractions. McArthur-Burney Falls Memorial State Park featuring Burney Falls and Lake Britton are within 10 miles of SR 299 to the north on intersecting SR 89. SR 299 used in conjunction with State Routes 89 and 44 forms a scenic loop popular for summertime travelers seeking cooler temperatures, recreational activities and visiting the State Park or Lassen Volcanic National Park.

Segment Issues

Key issues include:

- There are steep grades between Post Miles 80.09 and 91.08 near the Pit 1 Grade (elevation 3595 ft.)
- The public expressed interest in wider lanes and shoulders on Pit 1 Grade and Rocky Ledge.
- A few locations in this segment have narrow shoulder widths (2 ft.).
- Steep embankments and rock outcroppings along the roadway result in slides and falling rock during inclement weather.
- High elevations produce severe winter driving conditions and require seasonal snow removal.
- Dense forest along the route and switch-back curves limit site distance and limit opportunities to respond to wild life crossing the highway.
- Summer months produce increased traffic volumes with more pedestrian and bicycle activity within the communities of Fall River Mills and McArthur.
- This entire segment falls within the tribal ancestral boundaries identified by the Pit River Tribe. **See Appendix J**.

Segment Management

This segment's challenges relate to terrain constraints that reduce practical opportunities for shoulder widening and limited area for snow removal. Rocky slopes require frequent maintenance during inclement weather. Existing state Intelligent Transportation System (ITS) elements within this segment consist of a HAR at PM 80.20, a HAR Flasher at PM 80.42, and a Closed Circuit Television (CCTV) at PM 80.08.

Planned ITS elements include a Changeable Message Sign (CMS) just east of Jct. SR 299/SR89 (PM 81.2) and a CCTV at PM 89.4 near the Fall River area.

Consider additional Turnouts or Truck Climbing lanes on Hat Creek Grade and Pit 1 Grade to improve operations. Public comments indicated interest for these additional features anywhere there is a 6% grade.

Context sensitive solutions principles and design features should be applied to future projects developed within communities.

299 Transportation Concept Report

Segment 13
State Route 89 Junction to Shasta/Lassen County Line

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SR 299 Transportation Concept Report (TCR)
Segment 13
SR 89 Junction to SHA/LAS County Line (SHA 80.09 – 99.36)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
Chip Seal @ Fall River	**Pavement Restoration**	**SHA 80.1/91.4**	**2003**	**SHOPP**	**$1,588,000**	**Caltrans**
Digouts, Asphalt Overlay, and Chip Seal.						
*** McArthur Rehabilitation**	**Roadway Rehabilitation**	**SHA 95.1/99.4**	**2003**	**SHOPP**	**$11,330,000**	**Caltrans**
Roadway Rehabilitation – McArthur.						
* This project spans Segments 13 and 14.						
In-Progress						
McArthur Thin Blanket Overlay	**Maintenance**	**SHA 93.5/99.4**	**2009**	**Maintenance**	**$4,700,000**	**Caltrans**
Place Hot Mix Asphalt – Near McArthur.						
Potential Future 20-Year						
Hat Creek Grade	**Climbing Lane**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**
Add westbound climbing lane.						

General Information

County: Lassen / Modo **Route** 299 **Segment #:** 14LAS/MOD299 **Length Miles:** 26.0

Location: SHA/LAS County line to Adin **Exit #'s:** N/A **PM Limit** 0.0-25.63 / 0.0-0.33

System Designations

Functional Classification: Minor Arterial

Other Classifications:
Surface Transportation Assistance Act (STAA) Network, Terminal Access, Freeway/Expressway System

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 40-70

Clear Recovery: 20 ft.

Typical Section: 2 lanes; 12 ft. lane width; outside shoulder: 8 ft. (LAS 0.0-0.78 and 10.41-25.63, MOD 0.0-0.33); 4 ft. (LAS 0.78-10.41).

Concept LOS
C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	2-3%
Terrain:	Mountainous-Flat-Rolling	**Lane Width:**	11-12 ft.
Percent Trucks:	11-20%	**Average Outside Shoulder:**	1-4 ft

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	120-190	1050-2100	A
2015	150-200	1400-2400	A
2025	200-300	1700-2700	A

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
0.57	1.07	0.62	1.30

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 14
SHA/LAS County Line to Adin (LAS PM 0.0-25.63 / MOD PM 0.0-0.33)

Segment Description

This segment runs from the Shasta County line through the county of Lassen to the community of Adin in south western Modoc County.

State Route 299 serves as a main street through Bieber and Nubieber. Bieber was settled in 1877 and named in honor of the community's first postmaster. Nubieber was established later in 1931 and was centered around the railroad 3 miles southwest of Bieber.

Travel on this section of the corridor is regional, interregional and recreational. This segment links rural communities and small urban. Truck volumes range from 11-20% of ADT. The highest traffic volume is near Cemetery Road.

This section of the corridor is undivided 2-lane conventional. Paved shoulder widths are mostly 1 to 4-ft with exception of 8 ft shoulders on multiple bridges. including: 5 Pit River Overflows (LAS PMs 12.27, 12.82, 13.12, 13.4, and 13.61), Pit River Bridge (PM 14.06).

This portion of State Route 299 is often used to access SR 89 and SR 139 that can be used to access other routes to the north and south. Approximately 4 miles from Bieber is the Ash Creek Wildlife Area (14,754 acres) which is managed by the California Department of Fish and Game (DFG). This remote area has 3,000 acres of wetlands and is known for abundant waterfowl, varied bird species, and presence of diverse wildlife.

California registered Landmark No. 763 (Lassen Emigrant Trail) is in Bieber to commemorate a 12-wagon emigrant train from Missouri to California led by Peter Lassen in 1848.

Segment Issues

Key issues include:

- There are steep grades (6%) between Lassen Post Miles 0.0 and 9.9 over Big Valley Summit.
- Narrow shoulders and drop-offs can pose hazards for farm equipment that is often moved between ranches.
- Narrow shoulders are on the first 12 miles of this segment, part of which is over the Big Valley Summit (LAS PM 8.27, elevation 4603 ft.); and on the last 7 miles of this section. A few Bridges have shoulders widths less than 3 ft.: Raines Creek (LAS PM 2.45), Bieber Creek (LAS PM 19.83), and Willow Creek (LAS PM 24.01).
- In the event of closure of SR 299 due to flooding, or rail or traffic incident, the shortest most feasible route is often used as a detour which sometimes creates temporary traffic increases on local roadways.
- Steep embankments along the roadway over Big Valley Summit (PM 8.27) results in slides and falling rock during the rainy season.
- Nubieber railroad overhead at PM 11.89.
- This entire segment falls within the Tribal Ancestral boundaries identified by the Pit River Tribe and Susanville Rancheria. See **Appendix J**.

Segment Management

This segment's challenges relate to terrain constraints that reduce practical opportunities for shoulder widening where the roadway passes over Big Valley Summit. Rocky slopes require frequent maintenance during inclement weather.

Existing State Intelligent Transportation System (ITS) elements within this segment consist of a HAR Flasher at PM 24.90, and a HAR at PM 25.58.

Planned ITS elements include a Closed Circuit Television (CCTV) and a Roadside Weather information System (RWIS) both to be installed at PM 8.27. Also a Changeable Message Sign (CMS) is planned for PM 14.90.

A piece of County property at the intersection of SR 299 and Old Highway Road (Near LAS PM 4.0), is informally utilized as a meeting place, a change point for Federal Express & United Parcel Service delivery trucks, and check point during an annual 100-mile bike ride event. The county may seek to develop this location in the future.

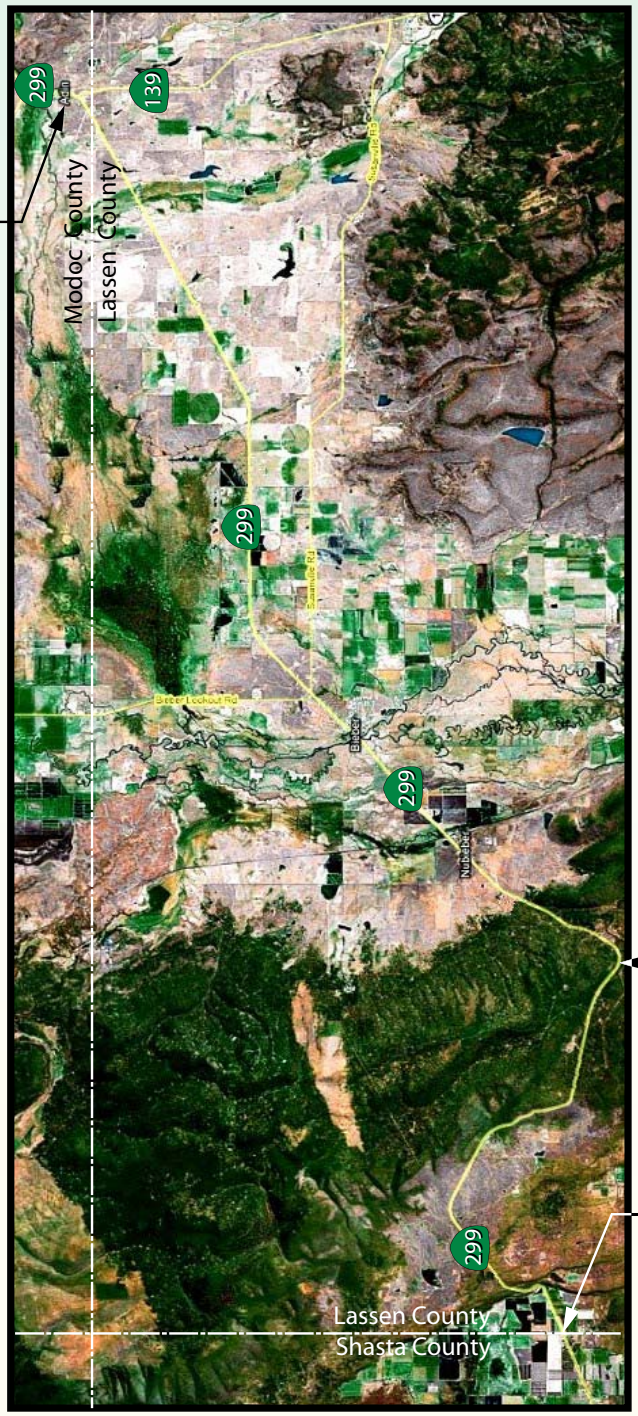
Nubieber's proximity to flood prone areas has considerably impacted the community. Future pursuit by Lassen County of a cooperative Area Drainage Plan or Water Management Plan may benefit future development opportunities.

Consider additional Turnouts or Truck Climbing Lanes on Big Valley Summit to improve operations. Public comments indicated interest for these additional features anywhere there is a 6% grade.

When rehabilitation projects are designed, consider lengthening culverts when feasible at locations where operational benefits may be realized.

299 Transportation Concept Report

Segment 14
Shasta/Lassen County Line to Adin



Adin PM 0.33

NORTH
No Scale

Big Valley Mountain
Summit Elev. 4,603
PM 89.40

Shasta/Lassen
PM 99.36/0.0

Caltrans

D2

SR 299 Transportation Concept Report (TCR)
Segment 14
SHA/LAS County Line to Adin (LAS 0.0 –25.63 / MOD 0.0-0.33)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
*** McArthur Rehabilitation**	**Roadway Rehabilitation**	**LAS 0.0/4.7**	**2003**	**SHOPP**	**$11,330,000**	**Caltrans**
Roadway Rehabilitation – McArthur.						
* This project spans Segments 13 and 14.						
In-Progress						
*** Adin Intersection Improvements**	**Operational Improvements**	**MOD 0.3/0.5**	**2011**	**Minor A**	**$300,000**	**Caltrans**
Improve Intersection – Near Adin at SR 139/299 to facilitate truck movements and widen shoulders to Butte Creek Bridge.						
*This project spans segments 14 and 15.						
Potential Future 20-Year						
Roadway Rehabilitation and Widening	**Roadway Rehabilitation**	**LAS 0-25.6**	**TBD**	**TBD**	**TBD**	**TBD**
Rehabilitate roadway.						
Culvert Rehabilitation	**Culvert Rehabilitation**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**
Rehabilitate and/or extend selected culverts on Big Valley Mountain.						
Rock Fall Mitigation	**Roadway Protective Betterment**	**MOD 0.06/0.3**	**TBD**	**TBD**	**TBD**	**TBD**
Mitigate rock fall.						

General Information

County: Modoc **Route** 299 **Segment #:** 15MOD299 **Length Miles:** 21.4

Location: Adin to Canby **Exit #'s:** N/A **PM Limit** 0.33 / 21.81

System Designations

Functional Classification: Minor Arterial

Other Classifications:
National Highway System (NHS) portions from PM 21.75, Interregional Road System (IRRS) from PM 21.75, Surface Transportation Assistance Act (STAA) Network, Terminal Access, Freeway/Expressway System

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 40-65

Clear Recovery: 5-20 ft.

Typical Section: 2 lanes; 12 ft. lane width; outside shoulder: 4 ft. (0.33-20.25); 8 ft. (20.25-21.81).

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	2-3%
Terrain:	Mountainous to Rolling	**Lane Width:**	11-12 ft.
Percent Trucks:	11-18%	**Average Outside Shoulder:**	4-8 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	120-200	800-1500	A
2015	150-225	900-1600	A
2025	175-250	1000-1700	A

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
0.38	0.97	0.48	1.02

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 15
Adin to Canby (MOD PM 0.33- PM 21.81)

Segment Description

This segment runs from the community of Adin in Modoc County to the north of the junction of SR 139/299 just west of the community of Canby. Adin was settled in 1870, and named after its founder, Adin McDowell. SR 299 serves as the town's main street.

Travel on this section of the corridor is regional, interregional and recreational. This segment links rural communities and small urban areas to SR 139.

Truck volumes range from 11-18% of ADT. The highest traffic volume is near SR 139 junction north near Canby. This section of the corridor is undivided 2-lane conventional with paved shoulder widths that are mostly 4 to 8-ft.

Within this entire section SR 139 is coincident (shares designations) from where it joins from the south at PM 0.33 to PM 21.81 near Canby. SR 139 is a parallel route to US 395 making access to Oregon, and can also be used to access Susanville via connection with SR 36 to the south.

Segment Issues

Key issues include:

- There are steep grades (6%) over Adin Pass between Modoc PM 11.4-12.7 and 12.7-14.6.
- A desire has been expressed by members of the public to consider options that may discourage traffic from moving quickly through the community of Adin.
- Adin Pass: Lengths of existing passing lanes limit effectiveness; few passing opportunities for eastbound traffic.
- Narrow shoulders on the following bridges: Dry Creek (PM 0.93), North Fork Ash Creek (PM 1.02), Rush Creek (PM 6.32 and 8.07), and Pit River (PM 17.95).
- A few locations in this segment have narrow shoulders widths (2 ft.) from Adin Rd. to Lookout Rd.
- Steep embankments along the roadway as the highway passes over Adin Summit result in falling rock debris.
- The majority of this segment of 299 passes through the Modoc National Forest (USFS).
- This entire segment falls within the tribal ancestral boundaries identified by the Pit River Tribe. **See Appendix J**.

Segment Management

This segment's challenges relate to terrain constraints that reduce practical opportunities for shoulder widening. Rocky slopes require frequent maintenance during inclement weather.

There is currently a single Intelligent Transportation System (ITS) element within this segment east of Adin, which is a Highway Advisory Radio (HAR Flasher) at PM 1.34.

Planned ITS elements include: a Changeable Message Sign (CMS) east of Adin (PM 0.40), and both a Closed Circuit Television (CCTV) and a Roadside Weather Information System (RWIS) at Adin Mountain Summit (PM 12.73).

Recently an Engineering and Traffic Study was performed through the community of Adin to establish speed limits enforceable by radar. Speeds were adjusted based upon required analysis; posted speeds were lowered on the outskirts of Adin; the transitional speed zones were also lengthened to allow drivers time to adjust speed, and in town, the speed limit was changed from 30 to 35 mph. Additional signs were placed in the transition zones to help slow traffic prior to entering the town.

Consider additional Turnouts or Truck Climbing Lanes on Adin Pass to improve operations. Public comments indicated interest for these additional features anywhere there is a 6% grade.

299 Transportation Concept Report

Segment 15
Adin to Canby

NORTH
No Scale

SR 299 Transportation Concept Report (TCR)
Segment 15
Adin to Canby (MOD 0.33 – 21.81)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor

Completed

No capacity projects or significant operational projects completed within the last 5 years.

In-Progress

Adin Intersection Improvements	**Operational Improvements**	**MOD 0.3/0.5**	**2011**	**Minor A**	**$300,000**	**Caltrans**
Improve Intersection – Near Adin.						

Potential Future 20-Year

Rock Fall Mitigation	**Roadway Protective Betterment**	**MOD 0.3/20.6**	**TBD**	**TBD**	**TBD**	**TBD**
Mitigate Rock Fall.						
Pavement Rehabilitation	**Roadway Rehabilitation**	**MOD 9.0/21.7**	**TBD**	**TBD**	**TBD**	**TBD**
Rehabilitate Roadway.						
Adin Summit Truck Climbing Lanes	**Operational Improvements**	**MOD 11.8/14.5**	**TBD**	**TBD**	**TBD**	**TBD**
Construct eastbound and westbound truck climbing lanes.						

SR 299 Transportation Concept Report - Segment Fact Sheet

General Information

County: Modoc **Route** 299 **Segment #:** 16MOD299 **Length Miles:** 18.8

Location: Canby to US 395 Junction **Exit #'s:** N/A **PM Limit** 21.81 / 40.63

System Designations

Functional Classification: Principal Arterial

Other Classifications:
National Highway System (NHS), Interregional Road System (IRRS), Surface Transportation Assistance Act (STAA) Network, Terminal Access, Freeway/Expressway System to PM 40.63, National Scenic Byway

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 50-65

Clear Recovery: 20 ft.

Typical Section: 2 lanes; 12 ft. lane width; outside shoulder: 8 ft. (39.5-40.63); 4 ft. (21.81-39.5 and 40.63-66.63).

Concept LOS
C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	2-3%
Terrain:	Rolling	**Lane Width:**	12 ft.
Percent Trucks:	8-24%	**Average Outside Shoulder:**	3-4 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	200-500	1850-4500	2005
2015	230-550	2000-4900	2015
2025	250-600	2100-5300	2025

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
0.27	0.97	0.50	1.03

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 16
Canby to US 395 Separation in Alturas (MOD PM 21.81- 40.63)

Segment Description

This segment runs from the community of Canby to the south junction of US 395 within the City of Alturas.

The community of Canby is located just south of Rattlesnake Butte, and is surrounded by hay farms and cattle ranches. Canby's first post office opened in 1874.

Alturas lies near the Center of Modoc County in the Pit River Valley at the junction of SR 299 and US 395. Alturas was originally named Dorris Bridge, which was designated the county seat in 1874, because it had the highest population for cities in the newly formed county. The community was renamed Alturas in 1876.

Portions of the City of Alturas are established along State Route 299, with residential and commercial development. However, the bulk of commercial activity and residential transportation activity in the community is located along US 395, which serves as Main Street and the downtown area of the city.

SR 299 has a route break within Alturas beginning at the junction of US 395 (North Main Street). Here, US 395 serves SR 299 east-west traffic for approximately 6 miles, then SR 299 resumes at PM 40.63.

Travel on this section of the route serves local, regional and interregional, local and recreational traffic. SR 299 links SR 139 and US 395. This section also serves recreational travel and goods movement. Truck volumes range from 8-24%. The highest volumes of traffic are near the junction of US 395.

In Alturas, SR 299 is a 2-lane conventional with 12-foot lanes, 6-10 foot paved outside shoulders.

Segment Issues

Key issues include:

- SR 299 serves as a main street through the community of Canby.
- Approximately one mile of SR 299 passes through the north portion of Alturas. Households and local businesses generate pedestrian, bicycle, and vehicular traffic at intersections and along the route.
- Vehicles entering and exiting the highway for commercial businesses along SR 299 in Alturas affect traffic operations. Left turning vehicles slow mainline traffic.
- Since the community of Alturas is at an elevation of over 4300 ft, low temperatures are common in the months of October through April, which can produce snow & ice conditions on the roadway.
- The narrowest shoulders (1-4 ft.) in this segment are between PMs 21.81-27.42.
- There are two at-grade Rail Road crossings at PMs 23.12 and 40.5.
- No bicycle/pedestrian facilities.
- This entire segment falls within the tribal ancestral boundaries identified by the Pit River Tribe. Alturas Rancheria is adjacent to the city of Alturas. **See Appendix J**.

Segment Management

Traffic projections for the next 20 year period indicate that the existing facility layout will provide sufficient capacity for future traffic demands. However roadway pavement conditions will require sufficient rehabilitation to avoid deterioration beyond maintainable levels. Thus, asphalt maintenance activity will remain a high priority.

Context sensitive solutions principles to enhance pedestrian mobility and safety should be considered when developing future projects within the community of Alturas.

Existing State Intelligent Transportation System (ITS) elements within this segment consist of a HAR Flasher west of Alturas at PM 38.69

Planned ITS elements include a HAR Flasher Near Jct. 299/139 Canby at PM 22.41 and a Changeable Message Sign (CMS) West of Alturas at PM 38.5.

Area long range planning documents address development on the west end of the community of Alturas along SR 299 and support a future conceptual grid pattern network. As development proposals are addressed, Caltrans in partnership with the City of Alturas can ensure a grid pattern road development through the local development review and encroachment permit processes. This cooperative effort may result in operational and safety improvements including consolidation of driveway and local road connections, as well as assist the city with implementation of storm water drainage system.

Other considerations include: left turn channelization or two way left turn lanes where traffic frequently enters and exits the highway to access commercial business.

299 Transportation Concept Report

Segment 16
Canby to Alturas (US 395 Junction route break)

SR 299 Transportation Concept Report (TCR)
Segment 16
Canby to Junction US 395 (MOD 21.81 – 40.63)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
No capacity projects or significant operational projects completed within the last 5 years.						
In-Progress						
Canby HAR Alert System	**Operational Improvements**	**MOD 22.4**	**2013**	**STIP**	**$300,000**	**RTPA and Caltrans**
Install HAR Alert System – Canby.						
Alturas 3-Lane	**Operational Improvements**	**MOD 40.2/40.6**	**2013**	**STIP**	**$2,483,000**	**RTPA and Caltrans**
Widening and Two Way Left Turn Lane, Increase Paved Shoulder and Drainage.						
Potential Future 20-Year						
WB Left Turn Lane at Jct W/CO Rd 75	**Operational Improvements**	**MOD 35.29**	**TBD**	**TBD**	**TBD**	**TBD**
Construct Left Turn Lane.						
Co Rd 73 Crowder Flat Left Turn Lane	**Operational Improvements**	**MOD 37.1**	**TBD**	**TBD**	**TBD**	**TBD**
Construct Left Turn Lane.						
Intersection improvements	**Operational Improvements**	**MOD 39.74**	**2010**	**STIP (RIP)**	**$2,350,000**	**City of Alturas**
Intersection at Warner Street to be reconstructed with curb and gutter as part of the Warner Street reconstruction project. Includes Improvement of truck turn radius for eastbound trucks turning right onto Warner Street.						
Alturas 299 Widening (Phase 2)	**Operational Improvements**	**MOD 39.3/40.6**	**TBD**	**TBD**	**TBD**	**TBD**
Drainage, landscaping, and aesthetic improvements.						
Changeable Message Sign	**Intelligent Transportation Systems**	**MOD 40.63**	**TBD**	**TBD**	**TBD**	**TBD**
Provide Changeable Message Sign in Alturas near the intersect SR 299/US 395 to inform motorists if mountain passes are closed.						

General Information

County: Modoc **Route** 299 **Segment #:** 17MOD299 **Length Miles:** 26.0

Location: US 395 to Nevada State Line **Exit #'s:** N/A **PM Limit** 40.63 / 66.63

System Designations

Functional Classification: Major Collector

Other Classifications:
Surface Transportation Assistance Act (STAA) Network, Terminal Access, National Scenic Byway to PM 57.35

Bicycle Status: Permitted

Facility Concept

Present: 2C

Twenty-Year: 2C

Long Range: 2C

Future Design Concept

Design Speed: 40-65

Clear Recovery: 5-20 ft.

Typical Section: 2 lanes; 12 ft. lane width; 4 ft. outside shoulder.

Concept LOS

C/D

Current Highway Information

Number of Lanes:	2	**Percent RVs:**	1-8%
Terrain:	Rolling-Mountainous-Flat	**Lane Width:**	11-12 ft.
Percent Trucks:	2-11%	**Average Outside Shoulder:**	3-8 ft.

Traffic Volume Ranges and LOS

Year	Peak Hour	Average Daily Traffic	LOS
2005	45-200	190-1450	A
2015	50-230	200-1600	A
2025	55-250	300-1800	A

Caltrans District 2, Office System Planning and Traffic Census

Collision Rates

Actual Collision Rates on Segment		Statewide Average for Highway Type	
Fatal + Injury Collision	Total Collision	Fatal + Injury Collision	Total Collision
0.63	1.08	0.78	1.58

Rates are ACC/MVM (Accidents per Million Vehicle Miles)

Source: Caltrans District 2, Office of Traffic Safety, Collision Data from 05-01-01 to 04-30-2006

SR 299 Transportation Concept Report (TCR)
Segment 17
US 395 North to Nevada State Line (MOD PM 40.63-66.63)

Segment Description

This segment runs from the north junction of US 395/SR 299 to the Nevada State line in Modoc County.

State Route 299 serves as a main street through the community of Cedarville. Cedarville, originally called Deep Creek, was settled about 1864. The community is surrounded by agricultural land with a high desert climate. Some of the major employers include: U.S. Forest Service, Bureau of Land Management, the schools and the Surprise Valley Community Hospital.

Truck volumes range from 2-11 % of ADT. The highest traffic volume is near Alturas.

Travel on this section of the corridor is mostly regional and recreational. This segment links the rural community of Cedarville to US 395 and Alturas.

This section of the corridor is undivided 2-lane conventional. Paved shoulder widths range from 3-4 ft between PM 40.63 and PM 56.2, and are 8 ft in width for the remainder of the segment. The roadway is graveled on the Nevada side and eventually connects to Nevada SR 140.

This portion of State Route 299 connects Surprise Valley to US 395 which passes through the City of Alturas. The Warner Mountains and the Modoc National Forest are the primary recreational attractions in this segment.

Segment Issues

Key issues include:

- Steep grades where the highway passes over the Cedar Pass Summit (elevation 6305 ft.). Grades are 6 % between Post Miles 48.7 to 51.2 and 51.2 to 56.2.
- A desire has been expressed by members of the public to consider turn pockets in the community of Cedarville
- Shoulder widths are narrow over the Cedar Pass.
- Snow and Icy conditions are common, especially over the Cedar Pass.
- There are limited passing opportunities from US 395 to Cedarville.
- Steep embankments along the roadway result in slides and falling rock during the rainy season.
- SR 299 to County Route 81 in Cedarville is sometimes utilized by 5 Axle Trucks en route to Nevada. Longer trucks cross over the centerline when turning at this intersection.
- The Cedarville Rancheria Truck Scales are operated by the Cedarville Rancheria at PM 56.81.
- Most of the Cedar Pass portion of SR 299 is within the Modoc National Forest.
- This segment falls adjacent to the tribal lands of the Cedarville Rancheria which comprises 21 acres adjacent to Highway 299 in the community of Cedarville. See **Appendix J**.
- Portions of this segment fall within the tribal ancestral boundaries identified by the Pit River Tribe. See **Appendix J**.

Segment Management

This segment's challenges relate to terrain constraints that reduce practical opportunities for shoulder widening where the roadway passes over Cedar Pass. Rocky slopes require frequent maintenance during inclement weather.

Existing state Intelligent Transportation System (ITS) elements within this segment consist of a HAR Flasher at PM 38.69 west of Alturas, and a Closed Circuit Television (CCTV) at the Cedar Pass sand house (PM 50.30)

A Roadside Weather information System (RWIS) is planned for placement at the Cedar Pass Sand house (PM 50.20)

Cedarville Rancheria has a proposed new road extension project (Johnstone Way) which will connect to SR 299 just west of Bonner Street.

Consider additional turnouts or truck climbing lanes on Cedar Pass to improve operations. Public comments indicated interest for these additional features anywhere there is a 6% grade.

Cedarville residents have expressed interest in placement of guardrail in the vicinity of Cedar Pass.

299 Transportation Concept Report

Segment 17
Alturas to Nevada State Line

Caltrans

D2

SR 299 Transportation Concept Report (TCR)
Segment 17
US 395 to Nevada State Line (MOD 40.63 – 66.63)

Segment Projects/Potential Improvements

Name	Type	Location	Year	Program	Cost	Sponsor
Completed						
Rock Fall Protection	**Roadway Protective Betterment**	**MOD 52.2/54.7**	**1999**	**Minor A**	**$750,000**	**Caltrans**
Erosion Control and Rock Fall Protection.						
Cedar Pass Passing Lane	**Operational Improvements**	**MOD 52.2/52.8**	**2002**	**Minor A**	**$710,000**	**Caltrans**
Construct WB Passing Lane – Cedar Pass.						
AC Shoulders w/ AC Dikes	**Major Damage Restoration**	**MOD 48.7/51.1**	**2005**	**Minor A**	**$350,000**	**Caltrans**
Repair Shoulder – Cedar Pass.						
In-Progress						
No capacity projects or significant operational projects in progress.						
Potential Future 20-Year						
Pavement Preservation	**Pavement Preservation**	**MOD 40.6/66.6**	**TBD**	**TBD**	**TBD**	**TBD**
Asphalt Overlay.						
Chip Seal	**Pavement Preservation**	**MOD 40.6/66.6**	**TBD**	**TBD**	**TBD**	**TBD**
Chip Seal.						
EB, Co Rd 267 Left Turn Lane	**Operational Improvements**	**MOD 45.5**	**TBD**	**TBD**	**TBD**	**TBD**
Construct Left Turn Lane.						
WB, Alpine Rd – Co Rd 58 Left Turn Lane	**Operational Improvements**	**MOD 46.29**	**TBD**	**TBD**	**TBD**	**TBD**
Construct Left Turn Lane.						
Cedar Pass EB Truck Climbing Lane	**Operational Improvements**	**MOD 48.8/52.0**	**TBD**	**TBD**	**TBD**	**TBD**
Construct East Bound Truck Climbing Lane.						